# ATTACHMENT C

## Part Q Excerpt from Pacific Gas And Electric Company 2012 Annual Report – PHMSA Form 7100.2-1 – Submitted to PHMSA on June 15, 2013 and Submitted To the CPUC on August 30, 2013

# PACIFIC GAS AND ELECTRIC COMPANY

# GAS TRANSMISSION AND STORAGE SAFETY REPORT

# NO. 2013-01

## REPORTING PERIOD
## JANUARY 1 – JUNE 30, 2013

## IN COMPLIANCE WITH CPUC DECISION 11-04-031

## SUBMITTED AUGUST 30, 2013

# PACIFIC GAS AND ELECTRIC COMPANY

# APPENDIX C

# PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION FORM 7100.2-1, ANNUAL REPORT FOR CALENDAR YEAR 2012 NATURAL OR OTHER GAS TRANSMISSION AND GATHERING SYSTEMS – PACIFIC GAS AND ELECTRIC COMPANY

# (JUNE 15, 2013)

Form Approved
OMB No. 2137-0522
Expires: 01/13/2014

## PART P - MILES OF PIPE BY MATERIAL AND CORROSION PROTECTION STATUS

| | Steel Cathodically protected | | Steel Cathodically unprotected | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Bare | Coated | Bare | Coated | Cast Iron | Wrought Iron | Plastic | Composite[1] | Other[2] | Total Miles |
| **Transmission** | | | | | | | | | | |
| Onshore | 8.7 | 5741.1 | 0 | 0 | 0 | .8 | 0 | 0 | 0 | 5750.6 |
| Offshore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Subtotal Transmission | 8.7 | 5741.1 | 0 | 0 | 0 | .8 | 0 | 0 | 0 | 5750.6 |
| **Gathering** | | | | | | | | | | |
| Onshore Type A | 0 | 3.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.9 |
| Onshore Type B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Offshore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| Subtotal Gathering | 0 | 3.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.9 |
| **Total Miles** | 8.7 | 5745 | 0 | 0 | 0 | .8 | 0 | 0 | 0 | 5754.5 |

[1]Use of Composite pipe requires PHMSA Special Permit or waiver from a State
[2]specify Other material(s):

## Part Q - Gas Transmission Miles by §192.619 MAOP Determination Method

| | (a)(1) Total | (a)(1) Incomplete Records | (a)(2) Total | (a)(2) Incomplete Records | (a)(3) Total | (a)(3) Incomplete Records | (a)(4) Total | (a)(4) Incomplete Records | (c) Total | (c) Incomplete Records | (d) Total | (d) Incomplete Records | Other[1] Total | Other Incomplete Records |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Class 1 (in HCA) | 16 | 5.7 | 42.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 1 (not in HCA) | 1766.6 | | 1917.4 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Class 2 (in HCA) | 11.1 | 6.6 | 23.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 2 (not in HCA) | 203.2 | | 205.2 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Class 3 (in HCA) | 399.7 | 242 | 546.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 3 (not in HCA) | 273.6 | 161.8 | 343.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 4 (in HCA) | .3 | .3 | .5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 4 (not in HCA) | .7 | .7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total | 2671.2 | 417.1 | 3079.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | |
|---|---|
| Grand Total | 5750.6 |
| Sum of Total row for all "Incomplete Records" columns | 417.1 |

[1]Specify Other method(s):

| | | | |
|---|---|---|---|
| Class 1 (in HCA) | | Class 1 (not in HCA) | |
| Class 2 (in HCA) | | Class 2 (not in HCA) | |
| Class 3 (in HCA) | | Class 3 (not in HCA) | |
| Class 4 (in HCA) | | Class 4 (not in HCA) | |

# ATTACHMENT D

## Part Q Excerpt from Pacific Gas And Electric Company 2013 Annual Report – PHMSA Form 7100.2-1 – Submitted to PHMSA on March 14, 2014 and Submitted To the CPUC on August 29, 2014

# PACIFIC GAS AND ELECTRIC COMPANY

# GAS TRANSMISSION AND STORAGE SAFETY REPORT

# NO. 2014-01

## REPORTING PERIOD
## JANUARY 1 – JUNE 30, 2014

## IN COMPLIANCE WITH CPUC DECISION 11-04-031

## SUBMITTED AUGUST 29, 2014

# PACIFIC GAS AND ELECTRIC COMPANY

# APPENDIX B

# PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION FORM 7100.2-1, ANNUAL REPORT FOR CALENDAR YEAR 2013 NATURAL OR OTHER GAS TRANSMISSION AND GATHERING SYSTEMS – PACIFIC GAS AND ELECTRIC COMPANY

# (MARCH 14, 2014)

## PART P - MILES OF PIPE BY MATERIAL AND CORROSION PROTECTION STATUS

| | Steel Cathodically protected | | Steel Cathodically unprotected | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Bare | Coated | Bare | Coated | Cast Iron | Wrought Iron | Plastic | Composite[1] | Other[2] | Total Miles |
| **Transmission** | | | | | | | | | | |
| Onshore | 8.7 | 5728 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5736.7 |
| Offshore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Subtotal Transmission | 8.7 | 5728 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5736.7 |
| **Gathering** | | | | | | | | | | |
| Onshore Type A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Onshore Type B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Offshore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| Subtotal Gathering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Miles** | 8.7 | 5728 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5736.7 |

[1]Use of Composite pipe requires PHMSA Special Permit or waiver from a State
[2]specify Other material(s):

## Part Q - Gas Transmission Miles by §192.619 MAOP Determination Method

| | (a)(1) Total | (a)(1) Incomplete Records | (a)(2) Total | (a)(2) Incomplete Records | (a)(3) Total | (a)(3) Incomplete Records | (a)(4) Total | (a)(4) Incomplete Records | (c) Total | (c) Incomplete Records | (d) Total | (d) Incomplete Records | Other[1] Total | Other Incomplete Records |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Class 1 (in HCA) | 14.4 | 0 | 48.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 1 (not in HCA) | 1621.8 | | 2023.8 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Class 2 (in HCA) | 9.6 | 0 | 29.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 2 (not in HCA) | 168.3 | | 248 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Class 3 (in HCA) | 239.8 | 0 | 733.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 3 (not in HCA) | 223.5 | 0 | 374.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 4 (in HCA) | 0 | 0 | .8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Class 4 (not in HCA) | 0 | 0 | .7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total | 2277.4 | 0 | 3459.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | |
|---|---|
| Grand Total | 5736.7 |
| Sum of Total row for all "Incomplete Records" columns | 0 |

[1]Specify Other method(s):

| | | | |
|---|---|---|---|
| Class 1 (in HCA) | | Class 1 (not in HCA) | |
| Class 2 (in HCA) | | Class 2 (not in HCA) | |
| Class 3 (in HCA) | | Class 3 (not in HCA) | |
| Class 4 (in HCA) | | Class 4 (not in HCA) | |

**ATTACHMENT E**

**NTSB Investigator Interviews From *United States v. Pacific Gas and Electric Co.*, Defendant's Motion to Dismiss for Failure to State An Offense, Count One, U.S. District Court, N.D., CA, San Francisco Division, Case No. CR-14-00175-TEH, filed September 7, 2015**

**Exhibits 3 (Chhatre), 5 (Nicholson) and 6 (Hall)**

# EXHIBIT 3

United States Department of Transportation - Office of Inspector General

# Memorandum of Activity

| Case Number: | Reporting Office: | Type of Activity: |
|---|---|---|
| I10Z0000450900 | JRI-9 San Francisco | Interview |
| **Date of Activity:** | **Date Report Drafted:** | **Location of Activity:** |
| 07/10/2014 | 07/14/2014 | |
| **Subject of Activity:** | **Activity Conducted By (Name(s)):** | **Signature:** |
| CHHATRE, RAVI . | Lisa Glazzy | L G |

On July 10, 2014, Special Agent Lisa Glazzy, U.S. Department of Transportation, Office of Inspector General, San Francisco, CA interviewed Ravi Chhatre, Investigator-in-Charge, National Transportation Safety Board (NTSB), regarding the NTSB's investigation of the September 9, 2010 PG&E pipeline rupture in San Bruno, CA. Assistant United States Attorney Kim Berger, Special Assistant United States Attorney Brett Morris, and Inspector Richard Maher, San Mateo County District Attorney's Office, also participated in the interview. Present during the interview was NTSB Deputy General Counsel Ann Gawalt.. The interview occurred at Chhatre's office in Washington DC. After being advised as to the identity of the interviewers and the nature of the interview, Chhatre voluntarily provided the following information:

The NTSB does not get involved in every incident. There is certain NTSB criteria that needs to be met. One of those is fatalities. After an incident occurs, the NTSB on-duty investigator will gather the details, prepare a summary report, and notify the appropriate personnel, including supervision. A recommendation is made to "launch" or not. If it is a major incident, a team is launched, and the on-call NTSB member joins the team. The team usually includes a public affairs person. Various state agencies are notified.

Regarding the San Bruno explosion, Chhatre was the NTSB Investigator-in-Charge (IIC). The team consisted of approximately 16 people that spent about 2 weeks on scene. The IIC usually reports the facts without any analysis, secures the scene of the accident, decides who is responsible for what, conducts interviews of those involved, and collects evidence such as the pipe. The NTSB Chief Counsel's office prepares the protocol for those few to receive what is called "party status." Typically party status is given to someone from PHMSA, the local police department, the local fire department, experts, and the operator, such as PG&E. Those members given party status must adhere to the protocol which includes not talking to the media, being completely forthcoming, and not interfering or impeding the NTSB's investigation.

Bob Fassett was PG&E's party status representative, but it then switched to William Hayes. The party status representative had to "have enough clout." Typically, a company will designate its own party representative. The NTSB did not choose this person. Hayes replaced Fassett, because the NTSB team learned that Fassett and a PG&E attorney conducted an interview (without the NTSB's knowledge) and talked with an older gentleman that had worked on the ruptured pipe. Chhatre confirmed that Frank Maffei was the older gentleman that Fassett and the attorney talked to unbeknownst to the NTSB. At Chhatre's request, Fassett was removed as the party representative and replaced with Hayes.

It was the second or third time PG&E was not forthcoming with information. One of the requirements to receive party status was to be up-front with information. PG&E really stood out as a company that was not forthcoming and lacked cooperation. They would dump a whole crate of documents and stamp everything confidential.

The NTSB requested all types of documents when it came to writing their report. All of their reports use supporting information. The reports are uploaded to the NTSB website.

(Agent's Note: AUSA Berger asked Chhatre to review a September 30, 2010 data request.)

The NTSB asked for the information, because the rupture happened below MAOP. It was important to know what

| Case Number: | Reporting Office: | Type of Activity: |
|---|---|---|
| I10ZD000450900 | JRI-9 San Francisco | Interview |
| **Date of Activity:** | **Date Report Drafted:** | **Location of Activity:** |
| 07/10/2014 | 07/14/2014 | |
| **Subject of Activity:** | **Activity Conducted By (Name(s)):** | **Signature:** |
| CHHATRE, RAVI . | Lisa Glazzy | L G |

happened to the pipe before the rupture. PG&E played games with the MOP/MAOP terminology. The NTSB was confused with PG&E's use of MOP vs MAOP.

(Agent's Note: AUSA Berger asked Chhatre to review a February 2011 supplemental to the data request.)

PG&E tried to extrapolate the 10% policy. They were using the 10% from another regulation which did not apply in this case.

(Agent's Note: AUSA Berger asked Chhatre to review an exhibit.)

"PG&E played a game" by exceeding the pressure to maintain capacity of their pipes without doing the more rigorous test. The NTSB learned about the pressure increases through interviews and reviewing documents. Chhatre recalled receiving the RMI-06 and his first reaction was that "they are not allowed to do that," referring to 10% policy. The original RMI-06 contained the 10% policy statement. Later, Chhatre received the April 6th letter from Hayes saying "Oops, that was a mistake in sending" that version of the RMI-06. "It was never approved." Chhatre never followed up with PG&E on the April 6th letter. There was no discussion of it with the rest of the party. The NTSB held the information in the letter close. They may have discussed it with PHMSA. PG&E was being "shady." The NTSB did not pursue whether PG&E was actually using the 10% policy. Chhatre didn't have the evidence, but he believed PG&E was using the 10% policy. With time restraints placed on the NTSB to finish their investigation, Chhatre could not do a lot of things he wanted to do. He had to stay focused.

Chhatre would have liked to have known about the 10% policy, and if PG&E were using the policy. If they were using it, it should have been disclosed to the NTSB, but he also believed that the regulators should have discovered it. Chhatre recalled talking with Hayes about the April 6th letter. Chhatre confirmed with Hayes that the version without the 10% policy was the version that should have been sent to the NTSB. Chhatre advised he "took them at face value" on the April 6th letter when PG&E said the earlier version was an unapproved draft. Chhatre did not know if PG&E was using the practice, but if PG&E were, Chhatre would have wanted to know on what pipe lines and would have wanted a conversation with PHMSA about why they did not catch it. If PG&E had told someone that they were using the 10% policy, the NTSB and the regulators would have all known about it. Chhatre could not recall if he asked Hayes if the 10% policy was in effect or not. Chhatre's theory at that time was that PG&E's record keeping was shabby, and it was one more thing that PG&E was not telling him. PG&E should have told the NTSB if they were using the 10% policy, and Chhatre would have liked to have known.

Chhatre wrote a memorandum to file explaining that PG&E had an earlier version of the RMI-06 containing the 10% policy because Chhatre wanted the record to be clear that PG&E later claimed that version with the 10% policy was an unapproved draft.

Chhatre may have spoken to Sunil Shori about the April 6th letter and the 10% policy. He spoke frequently with Shori, but nothing stands out in his mind.

Chhatre recalled talking with Peter Katchmar about the 10% policy, and Katchmar advised that it was not an acceptable practice.

Chhatre recalled that Hayes was reluctant to provide Bill Manegold for an interview, claiming Manegold may have been

| Case Number: | Reporting Office: | Type of Activity: |
|---|---|---|
| I10Z0000450900 | JRI-9 San Francisco | Interview |
| **Date of Activity:** | **Date Report Drafted:** | **Location of Activity:** |
| 07/10/2014 | 07/14/2014 | |
| **Subject of Activity:** | **Activity Conducted By (Name(s)):** | **Signature:** |
| CHHATRE, RAVI . | Lisa Glazzy | L G |

mentally unstable.

Only the NTSB can file a docket. No other party members are allowed to do it.

(Agent's Note: AUSA Berger asked Chhatre about PG&E submitting a 1988 leak report late in their investigation.)

The leak was on the same line as the San Bruno line. The leak was reported upstream of San Bruno, and it may have been a seam weld issue. If there is a seam weld issue on a line, you should be using a tool to asses for that. Any prudent operator would assess like that. PG&E explained to the NTSB that each segment is separate. PG&E said the leak report was submitted late because it was lost in the tons of information. Chhatre advised that the PG&E attorney was having a "temper tantrum" asking Chhatre why he kept asking repeated questions. Chhatre felt they were not being forthcoming about providing the leak report. It should have been provided in the first few months.

Chhatre disclosed that he worked at PG&E in their lab for approximately 18 or 19 years, around 1972 to 1988.

Chhatre was critical of PG&E recordkeeping. When Fassett met the NTSB team when they first landed, Fassett explained that the pipe was 30-inch seamless pipe. We "knew right away that something was fishy." No one used that type of pipe. It really bothered Chhatre when Fassett told the team that. "A blind man could see it had a seam." We continued to notice more and more issues and discrepancies dealing with PG&E. Chhatre recalled asking Fassett, "Are you sure that it's seamless?" Fassett replied, "That's what the records show."

Since the inception of the NTSB, it's rare to have "urgent recommendations" issued. In the pipeline field there have been nine urgent recommendations issued. Six have been issued to PG&E. It was a concern to the NTSB. All operators have record keeping issues, but PG&E was exceptionally bad. It was a huge concern to Chhatre. "You have to know what's in the ground."

Chhatre recalled PG&E employees were giggling, laughing and were sarcastic in interviews conducted by the NTSB in January 2011. Chhatre felt as if they were mocking him. Maybe it was because the NTSB was not asking their questions in the appropriate context. PG&E's demeanor was shocking and offensive to Chhatre and it really stood out to him.

During one of many meetings between the NTSB and Brian Daubin, Fassett, Shori, and possibly Katchmar, Shori requested to travel to PG&E in Walnut Creek to immediately pick up some pertinent documents. Daubin dismissed Shori saying something like, "Nope, you cannot have them today. You'll have to come tomorrow to get them." The NTSB was shocked in the manner in which PG&E dismissed Shori's request. Chhatre later said to Shori, "How can you take that from them?" Shori acted a little embarrassed. Shori had no authority or power over PG&E. Shori was afraid he would not get the support from his own managers.

All information was shared between NTSB, the CPUC, and PHMSA.

Chhatre felt that Chi Hung Lee "cherry picked evidence."

Reviewed By (Initials): M M Date: 11/06/2014

# EXHIBIT 5

**SAN MATEO COUNTY**
**DISTRICT ATTORNEY'S OFFICE**

**BUREAU OF INVESTIGATION**

| | | | |
|---|---|---|---|
| **NAME:** | PG&E | | |
| **INSPECTOR:** | R. Maher | **DATE:** | 11-03-2014 |
| **CASE TYPE:** | WITNESS INTERVIEW<br>**Matthew Nicholson (NTSB)** | **CASE #:** | CR10-0923-01 |

☒ **Supplemental Report "Z"**

**SUMMARY:**

On 07-10-2014, at approximately 1130 Hours, Agent Lisa Glazzy (DOT), Brett Morris (SAUSA/CA DAG), Kim Berger (AUSA) and I met with Matthew Nicholson PE (NTSB) at the NTSB building in Washington DC. Jim Rodriguez (NTSB Assistant General Counsel) was also present but did not actively participate in the interview. We introduced ourselves, provided Nicholson with our business cards, and explained we were working with the US Attorney's Office on an investigation involving PG&E and the San Bruno explosion. Nicholson agreed to talk with us and provided us with the following information.

**INTERVIEW:**

Matthew Nicolson is a Professional Engineer (PE) employed by the NTSB as a Pipeline Accident Investigator. He explained that he was not part of the initial launch (response) team that went out to San Bruno in the wake of the explosion but instead joined the investigation in 01-2011.

Nicholson explained the various investigation teams had already been established upon his assignment to the investigation and he was assigned to assist Ravi Chhatre. In that support position he helped to manage the voluminous requests made to PG&E.

Nicholson felt his largest contribution was focused on the Milpitas Terminal and more specifically, the SCADA equipment. With regard to his investigation into IM, he reviewed the GIS data and the factual report (prepared by Karl Gunther of the NTSB). Within GIS he personally noted "lots of inaccuracies and missing data" that called into question many of the IM assumptions that PG&E had made.

Nicholson interviewed several PG&E employees but only a few employees stood out. He remarked that William Manegold was a very quiet and withdrawn individual and he got the impression that many of Manegold's answers came from Brian Daubin and Robert Fassett as they interjected themselves in

his interview. Nicholson's recollection of the interview with Kazmirsky was that Kazmirski was forthcoming and "shut off" the PG&E attorney influence by answering the questions "true to topic." Nicholson also remembered an interview with a former employee, Frank Maffei. This interview stood out because the investigators learned in the interview that Fassett and a PG&E attorney had previously interviewed the witness outside of the NTSB investigation and then failed to share what they had learned with the NTSB.

Nicholson described this unauthorized interview as a breach of their party agreement. Ultimately, Fassett was removed from having party status and Bill Hayes took his place. He confirmed that Fassett would have had to sign a party agreement before he could participate and a copy of that agreement should be available for our review.

Nicholson told us that PG&E was "defensive," "condescending," "sarcastic," and it was a "toxic atmosphere." He felt as though the PG&E attorneys were trying to stop things and the NTSB was not getting real information from them. He added that in other investigations conducted by the NTSB the involved parties have been tough but in this case there appeared to be a problem with the culture at PG&E.

Nicholson thought some of the NTSB interviews may have been recorded and the recording, if they were made, would be available through the NTSB. He added that the signed party agreements would also be available.

Nicholson was shown the 09-30 Data Request. He examined the request and told us that it was not one he had created but it was one of the data requests that he tracked in the investigation.

Nicholson was shown the 02-22-2011 Supplemental Response. He examined it and stated he remembered it. He thought the original data request had been a field generated request and not one he had initiated. He explained the tracking of the supplemental responses was "nuts" because there was a real difficulty in determining if the response you were tracking was the most current one.

Nicholson was shown the 12-2010 Data Request on planned pressure increases. He stated he was very familiar with this issue and PG&E's practice of "pumping up their lines" every 5 years. It was his recollection that the regulations state that if you exceeded your normal operating pressure you need to assess the line for threats and PG&E was using an apparent loophole to raise pressures and maintain capacity. He remembered the planned pressure increases was one of the things he asked Sara Peralta about during the NTSB hearings and documented PG&E's practice as an issue to pursue later.

Nicholson was asked about Ravi Chhatre's memo to file regarding the 10% overpressure policy. He remembered the letter and thought it had been an excellent idea for Chhatre to document it in that way. He didn't remember ever discussing the policy with anyone from PG&E, Chhatre or anyone at the CPUC. He explained he would not have focused on the 10% issue because he was heavily involved in other areas of the investigation. He suggested that Robert Hall (NTSB) would have been more involved in this area.

Nicholson told us that with regard to GIS he went over the maps and the alignment sheets. He recalled seeing a lot of blanks and fought with PG&E to get the historical records. He questioned Peralta about the data and how they could determine if there was "incomplete" data. Peralta told him the fields would be filled with "NA" or left blank if there was missing data. He summarized that there were

problems with the records because they were "messy" and "incomplete." He clarified that there were also a lot of fields with incorrect data: depth of cover, yield strength, MAOP, pipe materials, etc.

Nicholson remembered sitting in on a conference call with PG&E about the late disclosure of the 1988 leak on L132. He thought that Brian Daubin (PG&E), Bob Fassett (PG&E), Sunil Shori (CPUC) and Ravi Chhatre (NTSB) were also on the call. PG&E had failed to provide the leak information to the CPUC and Sunil Shori (the CPUC regulator) told them he would come down a pick it up from them that same day. During this call, Daubin told Shori "no" he could not come get it and told him "You can show up but you won't get in [to the facility.]" Daubin told Shori he could not come until the next day. Nicholson thought this was an "ugly thing" from PG&E and was "shocked" at how PG&E talked to Shori who was their regulator.

Nicolson told us that the various investigation teams create factual reports from their investigations. The factual reports are lengthy and contain a lot of details. Some of the factual report topics included: SCADA, IM, Operations, and Record Keeping. Once finished, PG&E had a chance to comment on the factual reports and make suggestions. The NTSB was not under any pressure to accept any of PG&E's suggestions. It was his recollection that many of the PG&E suggestions were superficial in nature and had more to do with syntax and language than facts. The factual reports were then put together and summarized into the NTSB "final report."

Nicholson remembered that Fassett and a PG&E attorney had interviewed a former PG&E employee outside of the NTSB investigation and then failed to disclose that interview to the NTSB. He described Fassett's actions as inappropriate and added that Fassett attempted to cover himself and say the right things afterwards. Specifically, Fassett tried to tell the NTSB that he was trying to vet a potential witness as relevant before bringing the witness into to the NTSB. Fassett was removed from having NTSB party status as a result of this and was replaced by Bill Hayes.

Nicholson told us that it was his impression that getting information from PG&E was very difficult. He stated it was very frustrating because they had to rely on reviewing the documents since there was a lack of cooperation and openness from the PG&E employees.

**CONTACT INFORMATION:**

| | |
|---|---|
| **WITNESS Name**<br>NICHOLSON, Matthew | **E-Mail:**<br>matthew.nicholson@ntsb.gov |
| **Business Name**<br>National Transportation Safety Board (NTSB) | **Work Phone**<br>(202)314-6468 |
| **Business Address**<br>490 L'Enfant Plaza East, SW, Washington DC 20594 | **Cell Phone**<br>N/A |

End of supplemental.

Inspector _____
Rich Maher

Date: 11-03-2014

# EXHIBIT 6

United States Department of Transportation - Office of Inspector General

# Memorandum of Activity

| Case Number: | Reporting Office: | Type of Activity: |
|---|---|---|
| I10Z0000450900 | JRI-9 San Francisco | Interview |
| **Date of Activity:** | **Date Report Drafted:** | **Location of Activity:** |
| 07/10/2014 | 07/23/2014 | |
| **Subject of Activity:** | **Activity Conducted By (Name(s)):** | **Signature:** |
| HALL, ROBERT | Lisa Glazzy | L G |

On July 10, 2014, Special Agent Lisa Glazzy, U.S. Department of Transportation, Office of Inspector General, San Francisco, CA, interviewed Robert Hall, Pipeline Investigator, National Transportation Safety Board (NTSB), regarding the NTSB's investigation of the September 9, 2010 PG&E pipeline rupture in San Bruno, CA . Also participating in the interview were Assistant United States Attorney Kim Berger, Special Assistant United States Attorney Brett Morris and Inspector Richard Maher, San Mateo County District Attorney's Office. Present during the interview was NTSB Deputy General Counsel Ann Gawalt. Hall was interviewed at his office in Washington DC. After being advised as to the identity of the interviewers and the nature of the interview, Hall voluntarily provided the following information:

Hall began his career at the NTSB in March 2011. When he was hired, the NTSB's investigation of the San Bruno incident had been completed. The NTSB team investigating San Bruno did not have someone with significant mechanical integrity experience, so Hall filled that roll. The position required him to take a downgrade, but he was ultimately selected to a deputy director position shortly after he was hired.

For the first 3 to 4 weeks, Hall caught up with the details of the investigation by reading reports that had been submitted by PG&E. He focused on the Integrity Management program (IMP) and how it was developed. PG&E was a more difficult company to deal with. Getting information from them was like "pulling teeth."

Hall made sure that the NTSB team was being more specific with how they requested information from PG&E. They needed to use words like "any and all records." At times, PG&E would "push back" saying the NTSB's request for information was too broad. Hall felt PG&E eventually "came clean" on things, but it was like pulling teeth. If the NTSB didn't ask for something in the proper way, PG&E wouldn't provide it.

Most conversations Hall encountered with PG&E employees were with William Hayes and Bob Fassett.

Hall did not conduct any formal interviews, but recalled talking with Frank Maffei.

Hall's general impression of PG&E is that it had a sloppy IMP. He would rank PG&E in the lower third, and criticized PG&E for not following its own procedures. PG&E would not do annual reviews or updates to the IMP. Direct assessment (DA) was not supposed to be used for L132. Seam issues should have been uncovered on L132 if the right methodology had been selected. PG&E wanted DA to be its default assessment method because it was cheaper.

The NTSB team made many requests to PG&E for leak reports. Hall recalled a 1948 installation that PG&E had documented failed welds. Hall advised that PG&E fixed the failed welds but criticized them for failing to inspect anything beyond what they found.

(Agent's Note: AUSA Berger asked Hall to review a September 30, 2010 data request.)

Hall said this particular data request was made during a time when Hall was not an employee of the NTSB.

The principle issue was in the way PG&E had interpreted the regulation. PG&E interpreted it as a way to preserve its

| Case Number: | Reporting Office: | Type of Activity: |
|---|---|---|
| I10ZD000450900 | JRI-9 San Francisco | Interview |
| **Date of Activity:** | **Date Report Drafted:** | **Location of Activity:** |
| 07/10/2014 | 07/23/2014 | |
| **Subject of Activity:** | **Activity Conducted By (Name(s)):** | **Signature:** |
| HALL, ROBERT | Lisa Glazzy | L G |

MAOP/MOP, but Hall felt it was an incorrect interpretation.

(Agent's Note: AUSA Berger asked Hall to review a February 2011 supplemental to the data request.)

This particular supplemental request was made during a time when Hall was not an employee of the NTSB.

During the course of the NTSB's investigation, their focus was not on whether PG&E was increasing the pressure of their lines over 10%. They focused more on the way PG&E preserved the MAOP/MOP.

Hall did not recall having discussions about RMI 06 with PG&E. Hall felt that PG&E used a "creative interpretation" of the regulation.

(Agent's Note: AUSA Berger asked Hall to review an exhibit.)

Hall had seen the April 6th letter but did not recall having any specific discussions about it. Hall did not have any specific discussions with PG&E regarding the 10% policy. Hall's interpretation of the April 6th letter certainly seemed to imply that the 10% policy was not an approved practice, but Hall had no idea of whether or not PG&E was actually using it.

Hall believes PG&E was using the wrong interpretation of the regulation. The regulation was supposed to be applied to relief valves and not transmission lines. Looking at the total picture, PG&E was very sloppy and had a number of creative interpretations. PG&E was trying to stretch the regulations. Hall commented, "Every rock you would turn over, you would find more problems."

Hall would have expected PG&E to tell him if they were using the 10% policy but the NTSB was finding so many issues that they had to leave out things just to stay "streamlined."

Hall suggested talking with PHMSA employee Mike Israni regarding the development of the IM regulations. Hall recalled a huge number of supplemental reports.

Hall described some of his frustration with PG&E in obtaining an interpretation of what "N/A" stood for. It took PG&E weeks to get him a simple response that N/A stood for "none."

(Agent's Note: AUSA Berger asked Hall about PG&E submitting a 1988 leak report late in their investigation.)

Hall advised the report was produced late in investigation, however, it may have been submitted late because of the way the NTSB requested it. The NTSB may not have been specific enough in their request.

In 1989, Hall was a consultant to PG&E in their nuclear group. Hall did not do anything dealing with their pipelines.

(Agent's Note: AUSA Berger asked Hall about Ravi Chhatre's memo to file.)

Hall did not recall it specifically, however, suspected the motivation for writing the memo was to clarify the 10% issue. Hall would have expected that if PG&E was using the 10% practice, it should have been disclosed to the NTSB.

| Case Number: | Reporting Office: | Type of Activity: |
|---|---|---|
| I10Z0000450900 | JRI-9 San Francisco | Interview |
| **Date of Activity:** | **Date Report Drafted:** | **Location of Activity:** |
| 07/10/2014 | 07/23/2014 | |
| **Subject of Activity:** | **Activity Conducted By (Name(s)):** | **Signature:** |
| HALL, ROBERT | Lisa Glazzy | L G |

Hall recalled an "annoying" issue surrounding the INGAA Report. Hall felt PG&E tried to mislead the NTSB's investigation and push them into a different direction with that report. The NTSB spent a significant amount of resources to discredit the INGAA report. Hall felt it was a way for PG&E to divert attention off of them.

PG&E had to make disclosures to PHMSA regarding leaks, incidents and failures through a web-based application. PG&E certified the information to PHMSA. The NTSB never received the documentation from PG&E that supported these disclosures to PHMSA.

The NTSB prepared a factual report. All parties were invited to a technical review. The review took three days. It was a very "painful" process because PG&E argued over many of the points in the report, but the NTSB changed very little in its factual report.

Reviewed By (Initials): M M Date: 11/06/2014

# ATTACHMENT F

**Letter From Sumeet Singh, Vice President, Asset and Risk Management Gas Operations, Pacific Gas and Electric Company to Joseph Como, Acting Director, Office of Ratepayer Advocates – Without Attachments**

**Transmitted Via Email On February 2, 2015**

**From:** Mahe-Torres, Danielle L **On Behalf Of** Singh, Sumeet
**Sent:** Monday, February 02, 2015 4:29 PM
**To:** 'kvc@cpuc.ca.gov'
**Cc:** Vallejo, Alejandro (Law); Ramaiya, Shilpa
**Subject:** FW: PG&E's Response to January 30, 2015 letter from ORA to President Picker and the Commissioners

**From:** Mahe-Torres, Danielle L **On Behalf Of** Singh, Sumeet
**Sent:** Monday, February 02, 2015 4:01 PM
**To:** 'joc@cpuc.ca.gov'
**Cc:** 'kvc@cpuc.ca.gov'; 'tyr@cpuc.ca.gov'; 'eim@cpuc.ca.gov'; Vallejo, Alejandro (Law); Ramaiya, Shilpa
**Subject:** PG&E's Response to January 30, 2015 letter from ORA to President Picker and the Commissioners

Mr. Como,

Please refer to the attached letter.

Thank you.

*Sumeet Singh*
VP Asset & Risk Management
Gas Operations
Office #: 925-244-3184
Cell #: 415-671-9339

Pacific Gas and Electric Company®

**Sumeet Singh**
Vice President
Asset and Risk Management
Gas Operations

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**Phone:** 925.244.3189
**E-mail:** Sumeet.Singh@pge.com

Joseph A. Como
Acting Director
Office of Ratepayer Advocates
California Public Utilities Commission

**Via Email**

Dear Mr. Como:

PG&E is responding to the January 30, 2015 letter from Joseph Como, Acting Director of the Office of Ratepayer Advocates (ORA), to President Picker and the Commissioners. However, in light of applicable *ex parte* restrictions, PG&E is only addressing this letter to ORA and copying the Commission's General Counsel and Safety and Enforcement Division (SED).[1]

Despite ORA's claims to the contrary, PHMSA's interpretation letter dated January 23, 2015 does not indicate that PG&E's pipelines are operating out of compliance with federal regulations. As the Commission has found on numerous occasions, PG&E's methodology for establishing the Maximum Allowable Operating Pressure (MAOP) of its pipelines is consistent with the Commission's Orders and federal regulations. Moreover, PHMSA's interpretation letter explicitly states that the federal agency "does not interpret state regulations." As addressed below, the Commission has engaged in extensive regulatory proceedings and analysis to establish California-specific requirements.

Additionally, the 13 pipeline segments that PG&E self-reported on October 9, 2014, and which ORA purports to offer as proof that PG&E is in violation of state and federal regulations, have all been addressed and are currently operating in compliance with all applicable laws.

In short, ORA's allegations of PG&E's non-compliance are incorrect, and ORA's overreaching recommendations purport to undo years of rigorous proceedings that the Commission has already completed, while ignoring extensive regulatory reviews by SED.

**PG&E's Calculation of Maximum Allowable Operating Pressure (MAOP) Complies With State and Federal Requirements**

PG&E calculates the MAOP of its pipelines in the precise manner that ORA claims is required by federal law and Commission's Orders. As ORA is aware, consistent with 49 CFR § 192.619(a), PG&E limits the MAOP of its pipelines to the ***lowest*** of the calculated component design pressure, test pressure, and historical operating pressure, even where the line has been hydro tested to a level that validates a historic operating pressure greater than the design pressure, including those built before 1970.

[1] Decision 14-11-041

As explained by PHMSA's recent interpretation letter, under § 192.619(a), pipelines must have an MAOP that is the lowest of four values: (1) the design pressure of the weakest element in the segment; (2) the pressure obtained by dividing the post-construction pressure test by a factor tied to the segment's class location; (3) the highest actual operating pressure to which the segment was subjected between July 1, 1965 and June 30, 1970; and (4) the pressure determined by the operator to be the maximum safe pressure after considering the history of the segment, particularly known corrosion and the actual operating pressure. However, qualifying pipelines that were designed and installed prior to July 1, 1970 are not subject to this provision. As stated in § 192.619(c) (emphasis added):

> ***The requirements on pressure restrictions in this section do not apply in the following instance.*** An operator may operate a segment of pipeline found to be in satisfactory condition, considering its operating and maintenance history, at the highest actual operating pressure to which the segment was subjected during the 5 years preceding [July 1, 1970].

Thus, under the federal pipeline regulations, pre-1970 pipelines may operate at the highest pressure experienced in the five years prior to July 1, 1970, even if that pressure exceeds the design pressure calculated under § 192.105. As explained by PHMSA in the March 17, 2008 interpretation attached to ORA's letter (emphasis added):

> When these rules were first promulgated in 1970, ***PHMSA recognized that an operator may not have all the pressure data needed for existing pipelines.*** Therefore, we included in the rules a "grandfather clause" to allow pipeline operators to establish the MAOP of an existing pipeline segment in satisfactory condition, and considering its operating and maintenance history, at the highest actual operating pressure to which the segment was subjected during the 5 years prior to July 1, 1970. This "grandfather clause" is codified in § 192.619(c) . . .

PHMSA's 2008 and 2015 interpretations are consistent with PHMSA's formal instruction to operators in establishing MAOP:

> If the design pressure rating for system components cannot be determined due to lack of information, setting the MAOP based on Part 192.619(a)(4) or Part 192.621(a)(5) may be considered. This decision should be cleared through the appropriate regulatory authority. It is suggested that any approval received from an appropriate regulatory authority be obtained in writing to confirm action in the future.
>
> For transmission pipelines, under certain circumstances a design pressure limit (or lack of information on which to set a design pressure limit) may be overridden by Part 192.619(c). This regulation allows systems components installed prior to July 1, 1970, to remain in service at the same pressure they were subjected

> to between July 1, 1965, and June 30, 1970, even if that pressure exceeds the pressure rating for the component. If that is the case, the historic operating pressure may be used to set the MAOP in lieu of the design pressure.

(See Attachment 1). PG&E's MAOP Validation process reviews records to determine the pipeline's historic operating pressure, identifies the maximum pressure established by a qualifying strength test, and uses records and conservative engineering assumptions to calculate the component design MAOP of each pipeline feature.
For all pipelines (including those built before 1970) PG&E sets the MAOP at the ***lowest value*** of the calculated design pressure, the pressure allowed by a qualifying hydro test, and the historic operating pressure.

The Line 147 proceedings, to which ORA alludes, demonstrated that PG&E follows all state and federal requirements in calculating the MAOP of its pipelines. Line 147 was initially constructed prior to implementation of federal pipeline safety regulations in 1970. Under the federal regulations, PG&E did not possess the records required to establish MAOP under § 192.619(a). PG&E therefore followed § 192.619(c) in accordance with the federal regulations and determined Line 147's MAOP at the historic operating maximum pressure of 400 psig, as established by operating records. However, PG&E must also follow the Commission's prohibition against reliance solely on historical operating pressure to establish MAOP. Therefore, PG&E successfully conducted a strength test of Line 147 in 2011 to pressures in excess of 600 pounds, validating the historic MAOP of 400 psig under D.11-06-017. PG&E, however, went further and limited the MAOP to the lowest of design, test, and historic operating pressure, which in the case of Line 147 is 330 psig based on the design MAOP.

Indeed, PG&E's documents used to establish a pipeline's MAOP follow the requirements of § 192.619(a). As part of every MAOP Validation Report, PG&E follows the requirements of § 192.619(a) and Commission's Orders. (See Attachment 2).[2]

In short, PG&E's MAOP methodology has been, and continues to be, consistent with the federal gas safety regulations that ORA claims are controlling.

**ORA Failed to Provide PHMSA With All Relevant Information**

ORA's request for interpretation to PHMSA misrepresented the Commission's decisions and withheld critical information from PHMSA, including the extensive regulatory proceedings and analysis that the Commission established in promulgating California-specific requirements.

For example, in Decision 13-12-042, the Commission rejected ORA's arguments, in part, on the basis that ORA misapplied CPUC Decision 11-06-017, which required all "grandfathered" natural gas transmission pipelines (under 192.619(c)) in California to have their MAOPs verified

[2] Attachment 2 was produced during the Line 147 proceedings, and provided again to ORA's counsel on October 17, 2014. As shown on pages Exh A-64 and 65, PG&E explicitly references and follows the requirements of § 192.619(a). Moreover, the data columns in MAOP Report directly correlate to the federal code sections that ORA claims PG&E is failing to follow: "MAOP per Design" correlates to 192.619(a)(1) and Commission's Orders; "MAOP per Test" correlates to § 192.619(a)(2); and "MAOP per Record" correlates to § 192.619(a)(3) or (4), where applicable.

by a pressure test, or replaced. The first sentence of that decision states: "this decision orders all California natural gas transmission operators to develop and file for Commission consideration [an Implementation Plan] to achieve the goal of orderly and cost effectively replacing or testing all natural gas transmission pipeline that have not been pressure tested." The Commission's 2011 Order went on to explain:

> Notwithstanding the utilities' recordkeeping challenges, these missing records are particularly needed because the older pipelines were exempted from pressure testing requirements and many have not been pressure tested... [W]e require California natural gas transmission pipeline operators to prepare and file a comprehensive Implementation Plan to replace or pressure test all natural gas transmission pipeline in California that has not been tested or for which reliable records are not available.

Further, as an interim measure and to help prioritize the testing and replacement schedule, the Commission ordered PG&E to complete its MAOP determination based on calculations using engineering-based conservative assumptions for pipeline components where complete strength test records were not available. The Commission stated: "PG&E explained that it intends to use the lower of the calculated MAOP or historical operating pressure. ***We approve using the calculated MAOP to lower operating pressure as an interim measure pending replacement or testing***."

Decision 11-06-017 thus kicked off a series of extensive regulatory workshops and proceedings, which included voluminous records reviews and productions, days of expert testimony, and a full vetting of PG&E's Pipeline Safety Enhance Plan (PSEP). ORA, among other intevenors, participated actively in these proceedings. Following that process, in Decision 12-12-030, the Commission approved PG&E's PSEP, including its MAOP validation methodology.

In implementing PSEP, through the end of 2014, PG&E accomplished the 4-year goal of strength testing or records validation of 783 miles of transmission pipeline, replaced 127 miles of pipe installed 208 automated valves, retrofitted 201 miles of pipe for in-line inspection. And, per the Decision 11-06-017, as an interim safety measure, PG&E undertook an unprecedented records collection effort, pursuant to which it digitally converted more than 3.8 million paper records, which required processing approximately: 16,000 Pipeline Features Lists (PFL), 500,000 MAOP components and 40,000,000 data fields including 3,000,000 MAOP specifications.

As part of its PSEP Updated Application submitted on October 29, 2013, PG&E described the massive MAOP Validation project and referenced its completion. In that application, PG&E also explained that "older, historic records are not complete, and that records validation is an ongoing effort subject to continuous improvement. We will continue to discover new information about our pipelines through records validation and field testing of engineering assumptions." ORA was an active participant and thus it should have raised its purported concerns with PG&E's MAOP calculation methodology in that regulatory proceeding. Instead, ORA was one of the settling parties who filed the Joint Motion Of Settling Parties For Approval Of PSEP Update Application Settlement Agreement On April 25, 2014, SED released a report confirming that PG&E's MAOP Validation process is consistent with Commission directives and federal regulations for establishing MAOP. SED's review included a two week inspection

by six SED engineers of PG&E's PFLs, supporting documentation, and personnel involved in creating the PFLs. SED report stated that the review "exposed SED to [a] whole new level of understanding of the massive effort behind PG&E's MAOP Validation efforts. . . ." SED characterized PG&E's MAOP Validation effort as

> an unprecedented effort resulting in a substantial improvement over the previous system of record. This effort provides a level of detail not previously available and much can be learned from it. The opportunity for deeper understanding of PG&E's transmission system can greatly contribute towards improved decision-making impacting the safety and integrity of the system beyond validation of the MAOP.

SED concluded that "PG&E's validation of MAOP was generally consistent with the CPUC's requirements under D.11-11-017, D.12-12-030, and Res L-410."

In short, ORA's attempt to secure a different answer from PHMSA than it has been able to elicit from the Commission through the proper procedural channels sheds no additional light on PG&E's practice of establishing MAOP and constitutes a misguided understanding.

**The 13 Segments Self-Reported By PG&E Are Operating In Compliance**

ORA also purports to show that PG&E is out of compliance based on 13 pipe sections that PG&E ***self-reported*** to SED on October 9, 2014. (See Attachments 3a-3e). As ORA is also aware, on December 18, 2014, PG&E updated SED with several remedial actions (See Attachment 4), and today each of the 13 sections PG&E self-identified are operating at pressures that are compliant with state and federal requirements:

- PG&E has reduced the pressure on 11 of the 13 pipeline sections to levels that are commensurate with their respective class locations;
- PG&E replaced one pipeline section with new pipe that allows greater pressure ratings, and placed it back in service on December 10, 2014;
- PG&E worked with the property owner of a structure located near the remaining pipeline section to demolish and relocate the building, which resulted in lowering the class location of the pipeline and achieving a class-commensurate MAOP.

**PG&E Has Provided Extensive Documentation Regarding The Historic MAOP Its Pipelines**

Lastly, ORA argues that PG&E needs to produce records related to the Grandfather Clause or come into compliance with § 192.619(a). As stated above, PG&E is in compliance with § 192.619(a). Moreover, PG&E has already produced volumes of records related to the historic operating pressures of its pipelines. For example, on March 15, 2011, PG&E produced a report in Proceeding R.11-02-019 related to its records retrieval and MAOP validation efforts at that time, including PG&E's validation of records supporting the 1965-1970 highest operating pressure for pipelines with MAOPs established under § 192.619(c).

In conclusion, ORA continues to misinterpret state and federal regulations related to MAOP, misunderstands PG&E's MAOP methodologies and has failed to raise its concerns via the proper regulatory channels. As a result, ORA's recommendations are unnecessary.

Sincerely,

/s/

Sumeet Singh

cc: Karen Clopton, Commission General Counsel
Denise Tyrrell, Director, Safety and Enforcement Division
Elizaveta Malashenko, Deputy Director, Safety and Enforcement Division

Attachments

# ATTACHMENT G

## "PHMSA Letter of Interpretation"

**Letter From Jeffrey Wise, Associate Administrator for Pipeline Safety, Pipeline and Hazardous Material Administration to Joseph Como, Acting Director, Office of Ratepayer Advocates**

**Dated January 23, 2015**

U.S. Department of Transportation
**Pipeline and Hazardous Materials Safety Administration**

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

JAN 23 2015

Mr. Joseph P. Como
Acting Director, Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear Mr. Como:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA) dated December 4, 2013, the Office of Ratepayer Advocates (ORA) requested a regulatory interpretation of 49 CFR 192.619 regarding the maximum allowable operating pressure (MAOP) for natural gas pipelines. Specifically, ORA asked if the consideration of design pressure in § 192.619(a)(1) is required for pipelines that were placed in service before July 1, 1970. ORA asked whether an operator must use the design pressure in § 192.619(a)(1) as the MAOP for a segment of pipeline that was placed in service before July 1, 1970, if the design pressure is the lowest pressure from the methods set forth in § 192.619(a). In addition, ORA informed PHMSA that the California Public Utilities Commission (CPUC) no longer permits gas operators within its jurisdiction to rely on the "Grandfather Clause" in § 192.619(c).

ORA attached PHMSA's letter objecting to the Oklahoma Corporation Commission's (OCC) Waiver of Compliance, PHP-08-0074, dated March 17, 2008, and stated that it believes that letter to mean that an operator must calculate and consider the design pressure to determine the MAOP of pipelines installed prior to July 1, 1970, as well as after that date. ORA asked if its understanding is correct. ORA stated that the letter's discussion was about distribution lines and asked PHMSA to confirm that a MAOP calculated under § 192.619(a) cannot exceed design pressure for transmission pipelines installed prior to July 1, 1970.

ORA informed PHMSA that in a recent hearing held by the CPUC, Pacific Gas & Electric Company (PG&E) asserted that it is not required to consider design pressure for a pipeline placed in service before July 1, 1970, that has been subject to a Subpart J strength test. ORA stated that PG&E's reasoning was that "§ 192.619(a)(1) is forward-looking and applies only to segments of new pipeline installed after 1970, the year the Federal regulations became effective." ORA's letter stated that PG&E believes that the regulations allow it to operate a pipeline placed in service prior to July 1, 1970, at a MAOP based on its strength test pressure under § 192.619(a)(2) even if the design pressure is lower.

ORA stated that it disagrees with PG&E's interpretation because:

1. Section 192.619(a) does not state the design pressure is inapplicable to pipelines installed before July 1, 1970;
2. The MAOP requirements under § 192.619 are part of Subpart L, which govern safe operating conditions, and the requirement in § 192.619(a) appears to be a mandatory safety precaution; and
3. ORA believes the above mentioned PHMSA letter to the OCC confirms that the design pressure provision applies to lines placed in operation prior to July 1, 1970.

ORA asks the following questions, and PHMSA's answers are below:

**Question 1:** When validating the MAOP of pipeline segments placed in operation before July 1, 1970, and still in operation today, is the operator required to calculate and consider the design pressure pursuant to § 192.619(a)(1)?

**Response:** Section 192.619(a) states: "No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a MAOP determined under paragraph (c) or (d) of this section, or the lowest of the following: ...." Paragraphs (a)(1) – (a)(4) then specify four pressures which must be calculated in order to determine the MAOP. Therefore, the answer is yes.

The operator of a pipeline that was placed into service before July 1, 1970, must determine MAOP in accordance with § 192.619. If § 192.619(a) is used to determine MAOP, the operator must calculate the design pressure in accordance with § 192.619(a)(1), and use the design pressure or a lower pressure as the MAOP if that is the lowest of the four pressures described in paragraphs (a)(1) – (a)(4). If applicable, an operator may also use the "Grandfather Clause" in § 192.619(c) to determine the pipeline segment's MAOP.

Over time, changes in the population density surrounding a pipeline segment will affect the class location and MAOP of a pipeline. Section 192.613 requires operators to have a procedure for continuing surveillance of its facilities to determine and take appropriate action concerning changes in class location. When there are changes to population density along a pipeline segment, § 192.609 requires the operator to conduct a class location study, and § 192.611 details the requirements for confirming or revising the MAOP according to the new class location.

Paragraph (d) of § 192.611 requires the operator to confirm or revise the MAOP within 24 months of the change in class location. If an operator fails to confirm or revise the MAOP within 24 months of the change in class location, then § 192.611 cannot be used and the pipeline segment MAOP must be calculated in accordance with § 192.619(a), using the design factor that appears in § 192.111 for the new class location.

The CPUC may impose more stringent MAOP regulations by establishing them through state law. PHMSA does not interpret state regulations.

**Question 2:** If the answer to Question 1 is yes, must the operator use its design pressure as the MAOP when the design pressure is the lowest pressure calculation required by § 192.619(a)?

**Response:** Yes, if the Grandfather Clause in § 192.619(c) or the alternative MAOP option in § 192.619(d) is not applicable. If the operator uses § 192.619(a) to determine MAOP, the MAOP would be equal to the lowest value calculated according to paragraphs (a)(1) – (a)(4).

For a pre-July 1, 1970 pipeline segment, the operator must determine the MAOP in accordance with § 192.619(a) unless the operator has documentation that meets the § 192.619(c) requirements for the entire pipeline segment and elects to use it to establish MAOP.

If an operator uses § 192.619(a) to determine the pipeline segment MAOP, the operator must have records to substantiate the calculations required in paragraphs (a)(1) – (a)(4), including the properties of pipe and pipeline components. Paragraph (a)(1) requires that the pipeline design pressure be determined in accordance with Subparts C and D, including § 192.105 which states that the pipeline design pressure must be based upon the current class location design factor and the actual pipe properties which include yield strength (grade), wall thickness, longitudinal joint factor (seam type), maximum operating temperature and pipe diameter. If the pipeline segment contains pipeline components such as bends, fittings, flanges or valves, the operator would need to determine the design pressure of these pipeline components in accordance with applicable sections of Subparts C and D of Part 192.

If an operator uses the Grandfather Clause in § 192.619(c) to establish the MAOP, the operator must have documentation of the pipeline segment's condition and operating and maintenance history, including historical pressure records for the maximum operating pressure to which the entire pipeline segment was subjected during the five years prior to July 1, 1970. The Grandfather Clause in § 192.619(c) cannot be used to determine the MAOP after a change in class location. Section 192.611 can be used to revise the MAOP within 24 months after a class location change; after that deadline, the MAOP must be revised according to § 192.619(a).

Sections 192.517 and 192.603 require that all records regarding the pipeline MAOP determination be kept for the life of the pipeline segment, including records of pipe properties, pipeline component properties, pressure test records, class location studies, current class location designation, and operating history.

**Question 3:** Does § 192.619 apply to both transmission lines and distribution lines?

**Response:** Yes. The requirements in § 192.619 apply to both distribution and transmission natural gas pipelines. Section 192.621 contains different standards that apply only to high pressure distribution systems. States that regulate intrastate natural gas transmission pipelines and natural gas distribution pipelines have the right to implement state pipeline regulations that exceed the requirements in Part 192.

If we can be of further assistance, please contact John Gale of my staff at 202-366-0434.

Sincerely,

Jeffrey D. Wiese
Associate Administrator for
Pipeline Safety

**ORA**

*Office of Ratepayer Advocates*
*California Public Utilities Commission*

**JOSEPH P. COMO**
**Acting Director**

505 Van Ness Avenue
San Francisco, California 94102
Tel: 415-703-2381
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http://ora.ca.gov

December 4, 2013

DEC 11 2013

VIA US MAIL

John Gale
Director, Standards and Rulemaking
U.S. Department of Transportation
Pipeline and Hazardous
Materials Safety Administration
East Building, Second Floor
1200 New Jersey Avenue SE
Washington, D.C. 20590

Dear Mr. Gale,

The Office of Ratepayer Advocates (ORA) at the California Public Utilities Commission is writing to the Pipeline and Hazardous Materials Safety Administration (PHMSA) to request an interpretation of the regulation on determining maximum allowable operating pressure (MAOP) for natural gas pipelines, 49 C.F.R. § 192.619. Specifically, do the design MAOP requirements of 49 C.F.R. § 192.619(a)(1) apply to pipelines in service today that were placed in service before July 1, 1970?[1] If a segment of pipeline was placed in service before July 1, 1970, and the design MAOP is the lowest MAOP from the allowable methods of calculating MAOP set forth in § 192.619(a), must the operator operate that line under the design MAOP? (Please note that the California Public Utilities Commission (CPUC) no longer permits gas operators within its jurisdiction to rely on § 192.619(c), the "grandfather clause," to validate MAOP.[2])

In PHMSA's Waiver of Compliance Order PHP 08-0074, dated March 17, 2008, PHMSA provided an interpretation of 192.619(a)'s MAOP requirements. Under that interpretation, PHMSA acknowledged that:

[1] As PHMSA may be aware, in the aftermath of the San Bruno, California pipeline explosion disaster, the California Public Utilities Commission (CPUC) ordered its regulated gas utilities to begin extensive evaluations of records and hydrotesting to verify the safety of natural gas pipelines. In particular, gas operators were ordered to validate the MAOP of their transmission lines without relying on § 192.619(c) (the "grandfather clause"). *See* California Public Utilities Commission Decision 11-06-017, pp. 18, 31 (June 9, 2011), *available at* http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/137309.PDF.

[2] *See* California Public Utilities Commission Decision 11-06-017, pp. 18, 31 (June 9, 2011), *available at* http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/137309.PDF.

The Federal pipeline safety regulations in § 192.619(a) limit the MAOP of a pipeline installed prior to July 1, 1970, to **the lowest of** the following four pressures:

- The design pressure of the weakest element in the segment per §192.619(a)(1);

- The pressure obtained by dividing the pressure to which the segment was tested after construction by the applicable factor per § 192.619(a)(2);

- The highest actual operating pressure the segment was subjected to during the 5 years preceding July 1, 1970 per § 192.619(a)(3); or

- The pressure determined by the operator to be the maximum safe pressure after considering the history of the segment per § 192.619(a)(4).

A pipeline operator would need data to support all four pressures listed above to establish the MAOP of a pipeline segment using § 192.619(a).[3]

ORA understands this interpretation to mean that an operator must calculate and consider the design MAOP to determine the MAOP of pipelines installed prior to July 1, 1970 (as well as after that date). Could PHMSA verify that ORA's understanding is correct?

PHMSA's Waiver of Compliance Order PHP 08-0074, cited above, specifically addresses distribution lines. If the answer to the previous question is yes, does the same requirement to calculate design MAOP for pipelines installed prior to July 1, 1970 also apply to transmission lines? ORA's understanding is that the Subpart L requirements regarding how to determine MAOP apply both to distribution and transmission lines. Section 192.601 refers to "the minimum requirements for the operation of *pipeline facilities*" and § 192.603(a) requires that "[n]o person may operate a *segment of pipeline* unless in accordance with this subpart" without making a distinction between transmission lines or distribution lines.

In a recent hearing held by the CPUC, Pacific Gas & Electric Company (PG&E) asserted that it is not required to consider design MAOP for a pipeline placed in service before July 1, 1970 that has been subject to a Subpart J strength test . PG&E states that § 192.619(a)(1) is forward-looking and applies only to segments of new pipeline installed after 1970, the year the federal regulations became effective. In PG&E's opinion, the regulations allow it to operate a line placed in use prior to July 1, 1970 based on its strength test pressure MAOP, under §192.619(a)(2), even when the design MAOP is lower.

[3] PHP 08-0074, p. 1 (March 17, 2008) (emphasis added).

ORA interprets the regulations differently. ORA's understanding is that when an operator is directed to validate the MAOP of a line operating *today*, regardless of when it was installed, it must use the MAOP determined by § 192.619(a); that is, the lowest value of pressure calculated using § 192.619(a)(1), (2), (3) or (4). Thus, if the design MAOP is lower than test MAOP, the design MAOP must be used unless one of the other methods permitted under § 192.619(a) yields a result that is lower. ORA wishes to verify that its understanding is correct.

ORA has taken this position for a number of reasons. First, Section 192.619(a) does not state that the design MAOP method is inapplicable to pipelines installed before July 1, 1970. Second, the MAOP requirements under § 192.619 are part of Subpart L, which governs safe operating conditions. The "operator must use the lower of . . . . ." provision of § 192.619(a) appears to be a mandatory safety precaution. Third, PHP 08-0074, referenced above, confirms that the design MAOP provision applies to lines placed in operation prior to July 1, 1970.

In sum, the Office of Ratepayer Advocates asks for the following interpretations:

1. When validating the MAOP of pipeline segments placed in operation before July 1, 1970 that are still operating today, is the operator required to calculate and consider the design MAOP pursuant to § 192.619(a)(1)?

2. If the answer to Question 1 is yes, must the operator use its design MAOP when the design MAOP is the lowest MAOP calculation required by § 192.619(a)?

3. Does § 192.619 apply both to transmission lines as well as distribution lines?

Sincerely,

K Paul for J. Como

Joseph P. Como
Acting Director
Office of Ratepayer Advocates
California Public Utilities Commission

Enclosure

U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

MAR 17 2008

Mr. Dennis Fothergill
Regulatory Program Manager
Pipeline Safety Department
Transportation Division
Oklahoma Corporation Commission
P.O. Box 52000
Oklahoma City, OK 73152-2000

Dear Mr. Fothergill:

The Pipeline and Hazardous Materials Safety Administration (PHMSA) reviewed your letter of January 23, 2008, notifying us that the Oklahoma Corporation Commission (Commission) granted CenterPoint Energy Resources Corp doing business as CenterPoint Energy Oklahoma Gas (CenterPoint) a waiver of compliance from state regulation 49 CFR 192.619(a)(3) [as adopted by the Commission in OAC 165: 20-5-21] for 138 low-pressure distribution system pipeline segments in Oklahoma. The regulations in § 192.619(a)(3) limit the maximum allowable operating pressure (MAOP) of a steel or plastic pipeline segment installed prior to July 1,1970, to the highest actual operating pressure the segment was subjected to during the 5 years preceding July 1, 1970.

The Federal pipeline safety regulations in § 192.619(a) limit the MAOP of a pipeline installed prior to July 1, 1970, to the lowest of the following four pressures:

- The design pressure of the weakest element in the segment per § 192.619(a)(1);
- The pressure obtained by dividing the pressure to which the segment was tested after construction by the applicable factor per § 192.619(a)(2);
- The highest actual operating pressure the segment was subjected to during the 5 years preceding July 1, 1970 per § 192.619(a)(3); or
- The pressure determined by the operator to be the maximum safe pressure after considering the history of the segment per § 192.619(a)(4).

A pipeline operator would need data to support all four pressures listed above to establish the MAOP of a pipeline segment using § 192.619(a).

When these rules were first promulgated in 1970, PHMSA recognized that an operator may not have all the pressure data needed for existing pipelines. Therefore, we included in the rules a "grandfather clause" to allow pipeline operators to establish the MAOP of an existing pipeline segment in satisfactory condition, and considering its operating and maintenance history, at the highest actual operating pressure to which the segment was subjected during the 5 years prior to July 1, 1970. This "grandfather clause" is codified in § 192.619(c), not § 192.619(a)(3).

The operator at the time the regulations were promulgated in 1970 should have established the MAOP for each of these 138 low-pressure segments by using either § 192.619(a) or § 192.619(c). Moreover, there are additional MAOP restrictions for low-pressure distribution systems in § 192.623. Subsequently, the MAOP of these segments can only be increased in accordance with 49 CFR Part 192, Subpart K- Uprating, not § 192.619(a) or § 192.619(c), and with consideration of § 192.623. Accordingly, if CenterPoint wishes to increase the existing MAOPs, they should seek relief from the uprating regulations and the low-pressure distribution system regulations, if required, not from § 192.619(a)(3).

Unfortunately, no data was submitted with the waiver grant to PHMSA regarding the existing MAOPs of these 138 segments. Nor is it clear why CenterPoint is seeking MAOP relief, if as you state in your letter, *"CenterPoint requested the MAOP for these 138 low pressure gas distribution pipeline segments be established at 1.00 psig, which is the current and historical maximum operating pressure for these segments."* If these segments have been historically operated up to 1.00 psig, then the existing MAOPs must already be at least 1.00 psig or the segments have been historically operated in violation of the pipeline safety regulations. If so, this needs to be addressed before a waiver is granted.

PHMSA is unable to fully evaluate this waiver grant without additional information. For example, why is CenterPoint establishing MAOPs in 2008 for pipeline segments that have been operating for over 50 years? Are there any open enforcement actions regarding the historical operation of these segments up to 1.00 psig? How does CenterPoint propose to meet the requirements in § 192.623, when it is known that many gas appliances are rated for 0.5 psig or less, not 1.00 psig?

For the reasons stated above, PHMSA objects to this waiver and the Commission's order is stayed. The Commission may appeal this matter. However, because the waiver of § 192.619(a)(3) is inappropriate, PHMSA suggests that CenterPoint resubmit its application to the Commission and that the Commission grant a new waiver, if appropriate. The new waiver grant must specifically identify the state pipeline safety regulation the Commission is waiving and must include new information from the petitioner to justify granting the waiver. This new information should include, at a minimum, technical evidence to substantiate that an MAOP of 1.00 psig for these 138 low-pressure distribution pipeline segments would result in equivalent or greater safety than an MAOP established using the methods currently allowed in the Federal pipeline safety regulations in 49 CFR Part 192.

If you wish to discuss this waiver or any other pipeline safety matter, my staff would be pleased to assist you. Please call Barbara Betsock, Acting Director of Regulations at 202-366-4361 for regulatory matters or Alan Mayberry, Director of Engineering and Emergency Support at 202-366-5124 for technical matters.

Sincerely,

William H. Gute
For

Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

corrosion monitoring under § 192.465 for the life of the pipe. Most of these commenters declared that 5 years would be adequate, but did not explain why a longer period is excessive. Lacking any convincing documentation to the contrary, RSPA believes the current rule should stay in effect. In our experience, a history of corrosion monitoring sheds light on the possible causes of a pipeline's condition. Such history has proven to be a valuable resource in deciding the extent and kind of remedial action needed when corrosion problems emerge on a pipeline.

Regarding the proposed 5-year retention time for records other than those required by §§ 192.465 (a) and (e) and 192.475(b), two commenters said the minimum time should be 3 years to coincide with the longest interval between inspections. Two others suggested that instead of a set time, we adopt a performance standard for record retention, basing it on the time needed to observe trends, inquire into compliance, or collect superseding data. All these comments provide a reasonable basis for record retention. However, our main concern is that operators keep records for a period that is compatible with the occurrence of routine compliance investigations. Therefore, for simplicity and uniformity, we have decided to adopt the proposed 5-year minimum retention time.

The state agency that commented objected to the 5-year proposal on grounds that it would sacrifice information about why external or atmospheric corrosion control was not installed on pipelines under §§ 192.455, 192.457, and 192.479. RSPA believes the loss of this information after 5 years would not be significant, because the pipelines involved are covered by requirements for periodic inspections or tests for corrosion under §§ 192.465 and 192.481.

*Section 192.553, General Requirements*

(See previous discussion under § 192.14).

*Section 192.607, Determination of Class Location and Maximum Allowable Operating Pressure*

Because § 192.607 has no continuing effect and the deadlines for compliance have expired, RSPA proposed to remove § 192.607 from part 192.

Fourteen TPSSC members voted for the proposal and one member abstained.

Five operators, one pipeline-related association, and one state agency commented on the proposed removal of § 192.607. Four operators and the association favored the idea. One operator and the state agency disagreed with removal, believing the rule is needed to tie a pipeline's maximum allowable operating pressure (MAOP) to its class location. Similarly, the NAPSR report recommended that we only remove the past compliance deadlines from § 192.607, leaving the rest of the rule in place to regulate the relation of class location to stress level on high-stress pipelines.

Section 192.607 was a transitional requirement. Its purpose was to establish plans under which operators initially determined class locations and confirmed or revised the MAOPs of their high-stress pipelines commensurate with their class locations. Section 192.607 provides that the plans had to be executed in accordance with § 192.611. This latter section together with § 192.609 are sufficient to require that operators have up-to-date class location determinations for high-stress pipelines, and maintain the MAOPs of those lines commensurate with their class locations.

Accordingly, § 192.607 is removed from part 192.

*Section 192.611, Change in Class Location*

Section 192.611 requires confirmation or revision of a pipeline's MAOP within 18 months after a change in class location. RSPA proposed to reorganize § 192.611 to clarify the requirement that the MAOP resulting from confirmation or revision may not exceed the pipeline's previous MAOP. This requirement is currently set forth in § 192.611(a)(3)(ii), suggesting that it applies only to confirmations or revisions under paragraph (a)(3), which is not the intent.

Fourteen TPSSC members voted for the proposal and one member abstained.

Five operators and one pipeline-related association commented on the proposal; each agreed with the proposal. Section 192.611 is, therefore, adopted as proposed in the NPRM.

*Section 192.614, Damage Prevention Program*

To decrease excavation damage to pipelines, § 192.614(b)(2) requires operators to notify excavators and the public about the need to locate buried pipelines before excavating. The NPRM proposed to amend the rule to clarify that in contrast to the actual notification required for excavators, only general notification is required for the public. General notice can be given through newspapers, radio, television, or other means of mass communication, as appropriate for the public in the vicinity of the pipeline.

Fourteen TPSSC members voted for the proposal and one member abstained.

Six pipeline operators and two pipeline-related organizations commented. Seven commenters gave their full or qualified approval and one commenter opposed the proposal. The qualified and negative comments were that the rule should inform operators of the acceptable means of notification. We do not feel it is necessary for the rule to do so, however, because the available means of giving general public notice are well known. The amendment to paragraph (b)(2) is adopted as proposed.

*Section 192.619, Maximum Allowable Operating Pressure: Steel or Plastic Pipelines*

Section 192.619(a) prescribes six pressure limits for use in determining the MAOP of steel and plastic pipelines, the lowest of which establishes the MAOP. Paragraph (a)(4) limits the MAOP of furnace butt welded pipe to 60 percent of the mill test pressure. Paragraph (a)(5) limits the MAOP of other steel pipe to 85 percent of the highest test pressure to which the pipe has been subjected, whether by mill test or by the post installation test.

RSPA proposed to repeal paragraphs (a)(4) and (a)(5), primarily because mill tests are not an adequate MAOP consideration. However, to assure consideration of longitudinal joint efficiency, RSPA also proposed, in paragraph (a)(2)(iii), that the class location pressure limit under existing paragraph (a)(2)(ii) be reduced for furnace butt welded pipe and lap welded pipe.

Eleven TPSSC members voted for the proposal, one member supported it with a recommended change, two members opposed it, and one abstained. A member recommended that RSPA not adopt proposed paragraph (a)(2)(iii) because design pressure (under paragraph (a)(1)) adequately covers longitudinal joint concerns.

RSPA concurs with this view as explained below in response to public comment.

Thirteen operators, four pipeline-related associations, and one state agency commented on the proposed amendment. Two operators, one pipeline-related association, and one state agency commented that proposed paragraph (a)(2)(iii) could require operators to reduce the operating pressure of some pipelines or test them to higher pressures than they previously were tested, possibly damaging the pipelines. In addition, some commenters stated that proposed paragraph (a)(2)(iii) would duplicate use of longitudinal joint factors.

# ATTACHMENT H

## Excerpt From Presentation Of The Pipeline and Hazardous Material Administration At The MAOP Workshop Sponsored By The CPUC's Safety and Enforcement Division In R.11-02-019

## "Calculating MAOP For Pre-1970 Pipe"

## Dated May 11, 2015

# California Public Utilities Commission Workshop 11:15 AM May 11, 2015

## Calculating MAOP for pre-1970 pipe

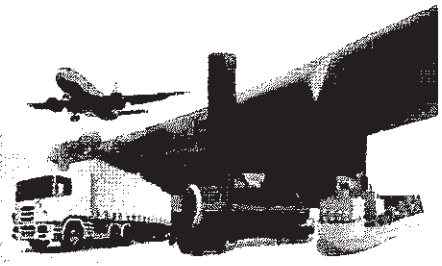
US DOT PHMSA Office of Pipeline Safety



# Examples of a Probable Violation

1. Operator's listed MAOP exceeds the criteria of §192.619.
2. All applicable elements required in a MAOP calculation were not adequately documented.
3. Actual operating pressure exceeded MAOP, without the occurrence of an equipment malfunction or failure.
4. Operator has no means to prevent the pipeline from being operated above the MAOP.
5. No records to substantiate the established MAOP.
6. Undocumented or unaddressed class location changes.





# ATTACHMENT I

**Presentation Of The Pipeline and Hazardous Material Administration At The MAOP Workshop Sponsored By The CPUC's Safety and Enforcement Division In R.11-02-019**

**"Calculating MAOP When There Are Insufficient Records To Comply With Federal Regulations – What Is The Process For Moving Towards Compliance?"**

**Dated May 11, 2015**

# California Public Utilities Commission Workshop

# 2:45 PM May 11, 2015

## Calculating MAOP When There Are Insufficient Records To Comply With Federal Regulations – What Is The Process For Moving Towards Compliance?

US DOT PHMSA Office of Pipeline Safety



# When There Are Insufficient Records To Comply With Federal Regulations

- Subpart L–Operations
  - §192.603 General provisions.
  - (a) No person may operate a segment of pipeline unless it is operated in accordance with this subpart.



# Examples of Records Violations

1. No records to substantiate the established MAOP. This could include not having records of an uprate or class location changes.
2. Not all applicable elements required in a MAOP calculation were adequately documented.
3. Records are inconsistent with field observations.



# Options for what to do next

- Reduce operating pressure to account for unknown values.
- Investigate the unknown items according to the principles that underlie the proposed Integrity Verification Process.
- Seek a Special Permit or Waiver from the Regulatory Authority.

In short, work with the authority having jurisdiction to develop a plan for compliance.

The priority, as always, is to ensure the safe operation of the pipeline.



# Few Records – Path Forward

- PHMSA has worked with States and individual Operators on developing material verification plans for specific pipelines and systems (both transmission and distribution) to ensure the safe operation of the pipeline. Examples include:
- State Findings have been supported – Indiana
  Special Permit for IURC Cause Number 44342; PHMSA 2013-0247
- Waivers have been published – Maine
  Maine PUC Docket No. 2011-00360; PHMSA 2013-0243
- Plans have been published – Magellan Longhorn
  PHMSA-2012-0175, Chapter 9, Section 9.3.3.3.1
- www.regulations.gov , enter PHMSA Docket #



# Waiver issued by Indiana - excerpt

**PHMSA-2013-0247**

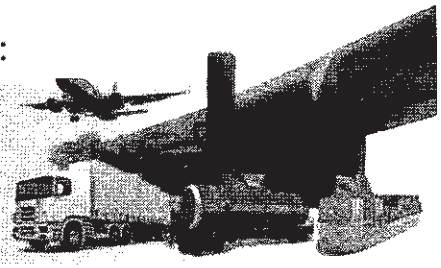
Dear Mr. Allen:

The Pipeline and Hazardous Materials Safety Administration (PHMSA) reviewed your letter of October 30, 2013, providing notification that the State of Indiana Utility Regulatory Commission (IURC) intends to issue a state waiver to the City of Huntingburg, Indiana Municipal Gas Utility (Huntingburg – IURC Cause #44342), contingent upon PHMSA's approval. The waiver allows the 4-inch steel distribution pipeline to operate at a maximum allowable operating pressure (MAOP) of 200 pounds per square inch (psi) until a verifiable MAOP can be determined. In order to determine a verifiable MAOP, the operator needs to conduct pipe excavations to determine wall thickness to comply with 49 CFR § 192.619(a)(1) and a pressure test to meet the requirements of § 192.619(a)(2) and 170 IAC 5-2-2(7).

The 4-inch pipeline consists of approximately 8.4 miles of pipe originating at a purchase meter station with Midwest Gas Transmission Company near Stendal, Pike County, Indiana and ending at a pressure reducing station near the intersection of County Road 750 South and County Road 500 West in Dubois County, Indiana.

The City of Huntingburg requested this waiver to operate the pipeline segment at 200 psi until a verifiable MAOP can be established. PHMSA does not object to the waiver to operate the pipeline segment up to 200 psi. The MAOP determination for design pressure (including confirmation of material properties) and pressure test prior to raising the pressure above 200 psi should be performed and compliance demonstrated in accordance with §§ 192.619(a)(1), 192.619(a)(2), and 170 IAC 5-2-2(7). The requirements of § 192.619(a)(1) for the confirmation of design pressure and § 192.619(a)(2) for a pressure test are as noted below:





# Waiver issued by Maine - excerpt

**Re: Docket No. PHMSA-2013-0243**

Dear Mr. Kenny:

The Pipeline and Hazardous Materials Safety Administration (PHMSA) has reviewed your letter of October 21, 2013, providing notification that the Maine Public Utilities Commission (MPUC) issued a State waiver to Northern Utilities, Inc. d/b/a Unitil (Unitil – MPUC Docket No. 2011-00360) contingent upon PHMSA's approval. The MPUC waiver (MPUC Docket No. 2011-00360) grant allows various diameters (½ through 12-inches) of steel (coated and bare) and plastic distribution pipelines to operate at a maximum allowable operating pressure (MAOP) determined through alternative evaluation measures. MAOP determination must be conducted by Unitil to meet the requirements of §§ 192.619(a)(1), 192.619(a)(2), 192.621(a)(1) and provisions of Chapter 420 of MPUC Rules.

Unitil's waiver request to the MPUC consists of MAOP determination deficiencies in 40 distribution systems (40 distribution segments in Unitil gas distribution system) in the State of Maine. The systems consist of various pipe diameters (½ through 12-inches), approximately 384 miles of pipe, and MAOPs from 30 pounds per square inch (psi) to 500 psi as described in Attachment A– dated 03-20-2014 (enclosed).

Unitil requested this waiver from the MPUC to:



# Records: what do we need?

- Material records – pipe, fittings & fabrications, etc.
  - Standards – API, ASME, ANSI, MSS, and ASTM
  - Tests – mechanical & chemical properties, welding, NDE, and hydrostatic test
  - QA and QC
- Design and Construction records
- Hydrostatic Pressure test records
- Operations and Maintenance records
- Integrity Management records



# "Records" in a Code Section Title

Records are the fundamental basis for many justifications and decisions made under Part 192.

- 192.491 Corrosion control records.
- 192.517 Records. *(in SubPart J)*
- 192.947 What records must an operator keep?
- 192.1011 What records must an operator keep?



# Records in other Significant Places

- §192.553 General requirements… (b) Records. Each operator who uprates a segment of pipeline shall retain for the life of the segment a record of each investigation required by this subpart, of all work performed, and of each pressure test conducted, in connection with the uprating.
- §192.603 General provisions… (b) Each operator shall keep records necessary to administer the procedures established under §192.605.



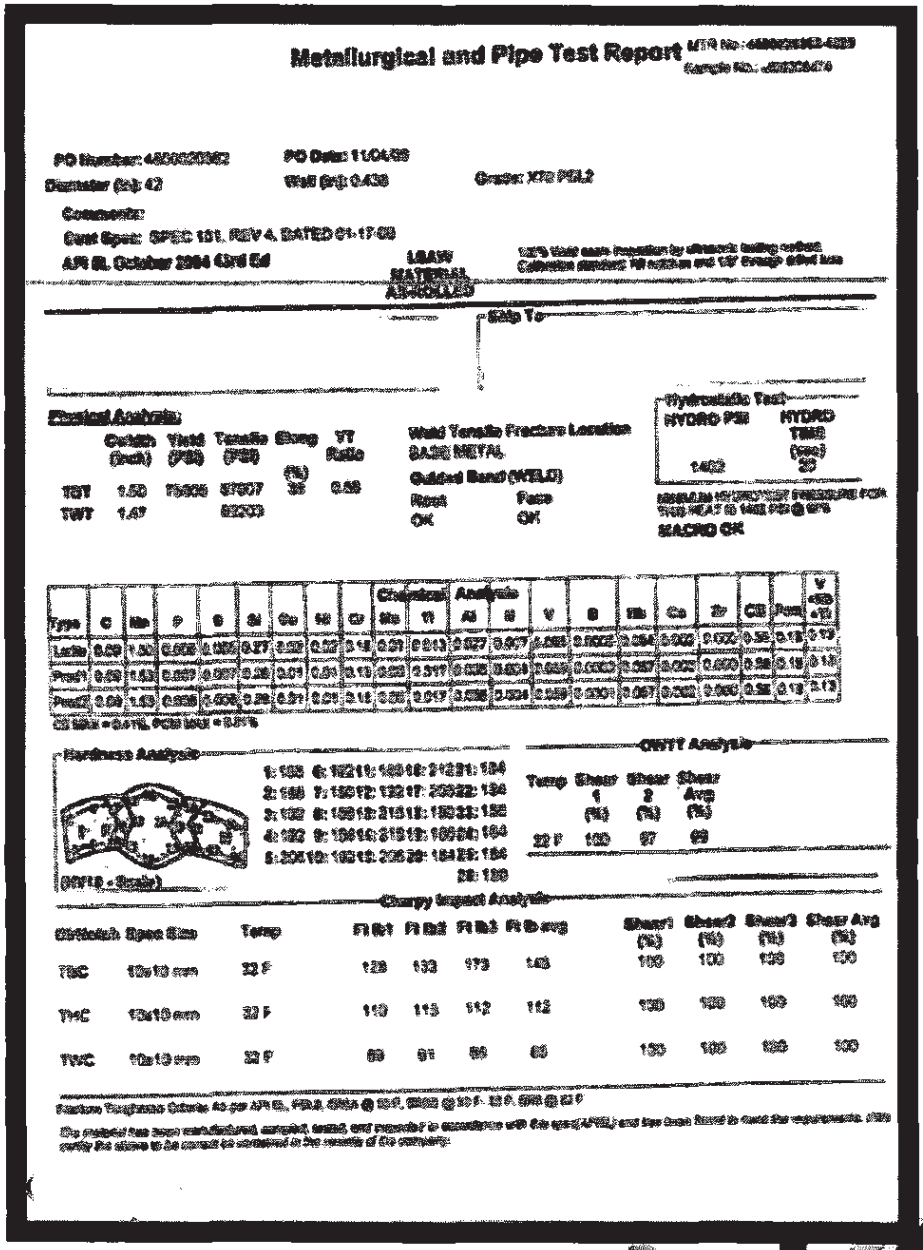
# Material and Pipe Records

- Materials must be manufactured in accordance:
  - DOT referenced standards
  - Able to maintain structural integrity of the pipeline:
    - Operating pressure, temperature, and environmental conditions including outside force loads
- API 5L – pipe mill test report
  - Chemical properties
  - Tensile properties – yield and ultimate
  - Hydrostatic test pressure



# MTR – Pipe

- Mill Test Reports



Metallurgical and Pipe Test Report

# Subpart C–Pipe Design

- 192.105 Design formula for steel pipe.
- 192.107 Yield strength (S) for steel pipe.
- 192.109 Nominal wall thickness (t) for steel pipe.
- 192.111 Design factor (F) for steel pipe.
- 192.113 Longitudinal joint factor (E) for steel pipe.
- 192.115 Temperature derating factor (T) for steel pipe.
- 192.121 Design of plastic pipe.
- 192.123 Design limitations for plastic pipe.



# Records Management

What type of pipe records are needed?

- For Design Formula and MAOP:
  - Outside diameter
  - Pipe wall thickness
  - Yield strength
  - Weld joint/seam type
- Pipe Design
  - Withstand external pressures and anticipated loads
  - Designed for service and class location



# Subpart J–Test Requirements

- 192.501 Scope.
- 192.503 General requirements.
- 192.505 Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS.
- 192.507 Test requirements for pipelines to operate at a hoop stress less than 30 percent of SMYS and above 100 psig.
- 192.509 Test requirements for pipelines to operate below 100 psig.
- 192.511 Test requirements for service lines.
- 192.513 Test requirements for plastic pipelines.
- 192.515 Environmental protection and safety requirements.
- 192.517 Records.



# Subpart L–Operations

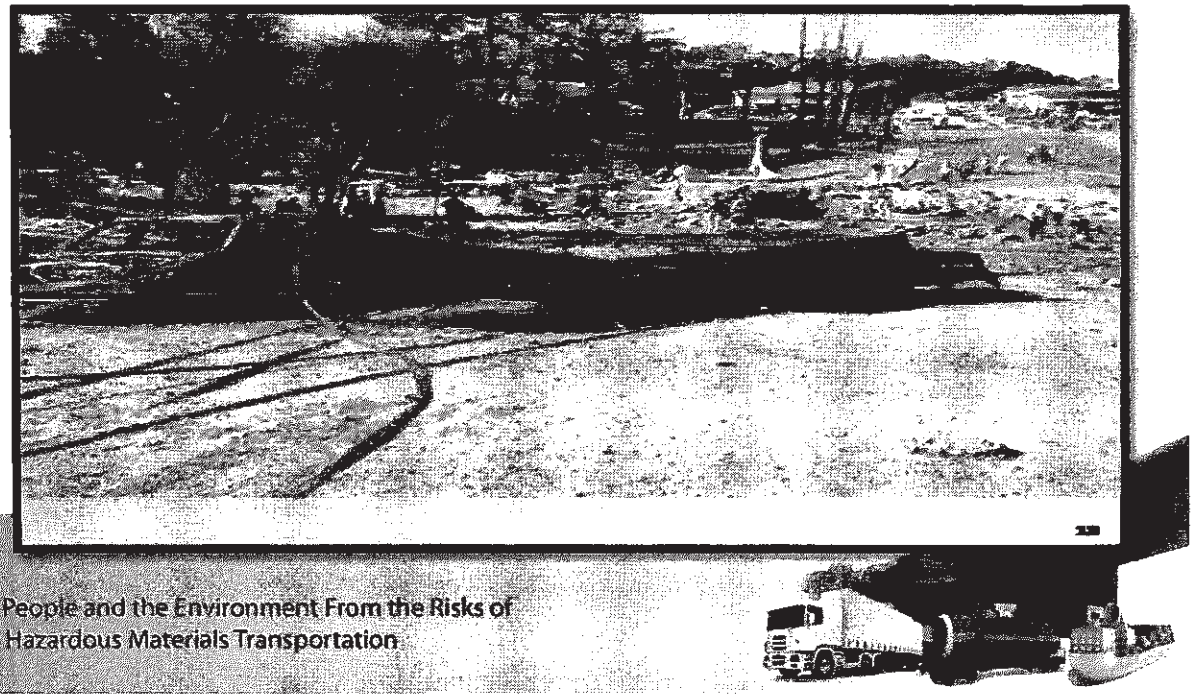
- 192.609 Change in class location: Required study.
- 192.611 Change in class location: Confirmation or revision of maximum allowable operating pressure.
- 192.619 Maximum allowable operating pressure: Steel or plastic pipe-lines.
- 192.621 Maximum allowable operating pressure: High-pressure distribution systems.
- 192.623 Maximum and minimum allowable operating pressure: Low-pressure distribution systems.



# NTSB Recommendations following San Bruno

- Delete grandfather clause
- Require all pre-1970 gas transmission pipelines be subjected to hydrostatic pressure test incorporating spike test

**Pipe – 30-inch Seamless?**



# Why are pipeline material records needed?

In addition to the existing records requirements in Part 192, Section 23 of the PSA of 2011 requires PHMSA to:

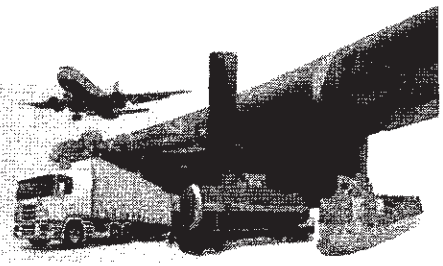
- Direct gas transmission Operators to provide verification their records accurately reflect MAOP of Class 3 and 4 locations and Class 1 and 2 HCAs
- Reconfirm MAOP for pipe with incomplete records
- Strength test all untested pipe in HCA operating at > 30% SMYS



# Gas Transmission NPRM – coming soon

- Integrity Verification Process is being used to address the Grandfather Clause topic from the ANPRM published in 2011.
- PHMSA intends to publish an Appendix which will list records and retention requirements in an easy-to-use format.
- Public Workshop on Integrity Verification Process on August 07, 2013 (Mtg #91)
  - http://primis.phmsa.dot.gov/meetings/MtgHome.mtg?mtg=91





# Integrity Verification

**Integrity Verification Process (IVP) is based on 4 principles:**

- Apply to higher risk locations (High Consequence Areas (HCAs) and Moderate Consequence Areas (MCAs))
- Screen segments for categories of concern (e.g., "Grandfathered" segments)
- Assure adequate material and documentation
- Perform assessments to establish MAOP



# IVP Principles

## #1: Apply to Higher Risk Locations

- High Consequence Areas (HCAs)
- Moderate Consequence Area (MCA):
  - Non-HCA pipe Class 1 locations that are populated in PIR (proposed 1 house or occupied site) to align with INGAA commitment
  - House count and occupied site definition same as HCA, except for 1 house or 1 person at a site (instead of 20)

# IVP Principles

## #2: Screen for Categories of Concern

- **Apply process to pipeline segments with:**
  - Grandfathered Pipe
  - Lack of Records to Substantiate MAOP
  - Lack of Adequate Pressure Test
  - Operating pressures over 72% SMYS (pre-Code)
  - History of Failures Attributable to M&C Defects



# IVP Principles

## #3: Know & Document Pipe Material

- If Missing or Inadequate Validated Traceable Material Documentation, then establish material properties by an approved process:
  - Cut out and Test Pipe Samples (Code approved process)
  - *In Situ* Non-Destructive Testing (if validated and Code approved)
  - Field verification of code stamp for components such as valves, flanges, and fabrications
  - Other verifications

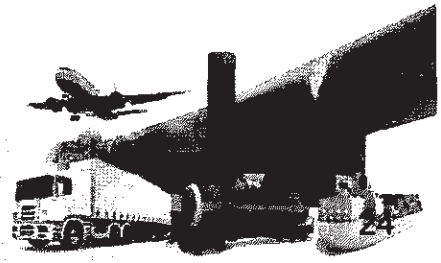


# IVP Principles

## #4: Assessments to Establish MAOP

- Allow Operator to Select Best Option to Establish MAOP
- Candidate IVP Options for Establishing MAOP
  - Subpart J Test with Spike Test
  - Derate pressure
  - Engineering Critical Assessment
  - Replace
  - Other or new technology





# Questions and Answers?



# ATTACHMENT J

## "SED Memo"

## Letter from Kenneth Bruno, Program Manager – Gas Safety and Reliability Branch, Safety And Enforcement Division, California Public Utilities Commission to President Picker And Commissioners

## Dated February 13, 2015

STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

February 13, 2015

To: President Picker and Commissioners

From: Kenneth Bruno, Program Manager – Safety and Enforcement Division

Re: SED's Analysis and Opinion on:
PHMSA's Interpretation Letter date stamped January 23, 2015
ORA's Letter dated January 30, 2015 to CPUC Commissioners
PG&E's February 2, 2015 Letter to ORA
ORA's Clarification Letter dated February 5, 2015

Dear President Picker and Commissioners:

In a letter dated January 30, 2015 to President Picker and the Commissioners, the Office of Ratepayer Advocates (ORA) indicated that a portion of Pacific Gas & Electric Company's (PG&E's) gas transmission system is not in compliance with federal regulations regarding the establishment of Maximum Allowable Operating Pressure (MAOP). ORA's letter relied in large part upon an interpretation letter from Pipeline and Hazardous Materials Safety Administration's (PHMSA) that was requested by ORA.

The Safety and Enforcement Division (SED) has conducted a thorough analysis PHMSA's Interpretation letter to ORA, ORA's January 30, 2015 letter, and subsequent response letters from PG&E and ORA. SED also met with ORA following the release of the PHMSA interpretation letter to better understand their concerns, and spoke with PHMSA on at least two occasions about their interpretation. Six members of the Gas Safety & Reliability Branch of SED reviewed the material: three Senior Utilities Engineer – Specialists (P.E.), one Utility Engineer, a Program and Project Supervisor (P.E.), and the Program Manager.

**SED's Summarized Opinion**

In SED's opinion, PHMSA's interpretation letter does not present any immediate safety concerns. Nor does the letter indicate any problems with SED's safety assurance work completed to date on PG&E's Pipeline Safety and Enhancement Plan (PSEP), PSEP Update Application, Maximum Allowable Operating Pressure (MAOP) Validation, or Gas Transmission & Storage Rate Case (GT&S). SED is not of the opinion that the California Public Utilities Commission (CPUC) eliminated Title 49, Code of Federal Regulations (49 CFR) § 192.619(c) also known as the

"grandfathering provision." PHMSA's letter, however, stated that "ORA informed PHMSA that the...CPUC no longer permits gas operators with its jurisdiction to rely on the 'Grandfather Clause' in § 192.619(c)." PHMSA's letter accordingly is based on that assumption, resulting in some confusion.

SED is of the opinion that a number of ORA's questions deserve solid answers, preferably in the Natural Gas Rulemaking Proceeding (R.)11-02-019. SED's understanding is ORA believes that some of their questions did not get sufficiently addressed in that proceeding, which led to their request for interpretation.

**SED's items of Note from Evaluation**

- In our opinion the CPUC did not eliminate 49 CFR § 192.619(c), also known as the grandfathering provision, however did require PG&E and other operators to pressure test or replace every transmission pipeline that did not have a 49 CFR Part 192 Subpart J test, or had pressure test records that were incomplete.
- PHMSA's interpretation letter to ORA is based, in part, on the assumption that the CPUC did indeed eliminate grandfathering.
- ORA has not presented nor specified examples of segments not in compliance, but raises general areas of concern that should be tested for specific compliance.
- ORA raises general class location concerns that SED also recommend be looked at in workshops on a segment by segment basis.
- PG&E incorrectly states that 49 CFR § 192.619 (a) is only forward looking as Subpart L – Operations is retroactive.
- SED and PHMSA recognize strength tests as the most accurate method for verifying MAOP because unavailable or inaccurate design data can result in misleading design pressures. Stated simply, if the pipe can successfully hold pressure at a high level, it is logical that it can safely hold pressure at a lower level.
- SED would like to point out that PG&E appears to be misinterpreting 49 CFR §§ 192.619(a)(4) and 192.621(a)(5). SED will only consider the factors in 49 CFR §§ 192.619(a)(4) or Part 192.621(a)(5) to go down in pressure from an otherwise established MAOP in accordance with our PHMSA Training and Qualifications.[1]
- PG&E should provide evidence of a historic operating pressure record from the applicable 1965-1970 era as its basis while operating Line 147 under 49 CFR § 192.619(c) at 400 psig.

[1] See Page 2 of PG&E's reply to ORA's January 30, 2015 letter

- ORA suggests that PG&E has uprated transmission lines without evidence of a class change. PG&E should immediately identify any and all segments where this has occurred and SED will conduct a thorough examination. ORA is welcome to participate in this analysis.

**SED Conclusion**

The Gas Safety & Reliability Branch of the SED does not currently know of any specific instances of non-compliance regarding MAOP, but does support having workshops with specific MAOP calculations for identified pipeline segments. SED could lead such workshops and we would welcome PHMSA Western region to participate as well, along with any interested parties. SED will continue to investigate PG&E's compliance with code as it relates to class location and related impact to MAOP and their historical use of 49 CFR § 192.619(c). SED will also continue to monitor PG&E for code compliance in our ongoing safety assurance activities. Please feel to contact either Dennis Lee or Kenneth Bruno with any questions.

Sincerely,

Kenneth Bruno
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission

Cc: Timothy J. Sullivan, CPUC Executive Director
Peter Allen, CPUC Legal
Denise Tyrell, CPUC, Acting Director, SED
Liza Malashenko, CPUC, Deputy Director, SED
Dennis Lee, CPUC, Program and Project Supervisor, SED
Maribeth Bushey, ALJ
Ken Koss, Chief-of-Staff, President Picker
Sepideh Khosrowjah, Chief-of-Staff Commissioner Florio
Ditas Katague, Chief-of-Staff Commissioner Sandoval
Julie Fitch, Chief-of-Staff Commissioner Peterman
Rachel Peterson, Chief-of-Staff Commissioner Randolph

**ATTACHMENT K**

**Letter from Joseph Como, Acting Director, Office of Ratepayer Advocates To California Public Utilities Commission to President Michael Picker And Commissioners Catherine Sandoval, Michel Florio, Carla Peterman, and Liane Randolph – Without Attachments**

**Dated January 30, 2015**

**ORA**

*Office of Ratepayer Advocates*
*California Public Utilities Commission*

**Joseph P. Como**
**Acting Director**

505 Van Ness Avenue
San Francisco, California 94102
Tel: 415-703-2381
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January 30, 2015

President Michael Picker
Commissioner Catherine Sandoval
Commissioner Michel Florio
Commissioner Carla Peterman
Commissioner Liane Randolph

**Subject: PG&E's Compliance with Federal Gas Pipeline Safety Regulations**

Dear President Picker and Commissioners:

I am writing to convey information that a portion of Pacific Gas and Electric Company's (PG&E) gas transmission system is not in compliance with federal regulations regarding the establishment of Maximum Allowable Operating Pressure (MAOP). I suggest that the Commission develop a plan in coordination with the Pipeline and Hazardous Materials Safety Administration (PHMSA) and interested parties to ensure that the operation of PG&E's gas transmission system complies with minimum federal safety regulations. Information provided by PHMSA indicates that in areas of increased population many of PG&E's pipelines are not being operated within federal safety rules. In other areas PG&E has improperly relied on the federal "grandfathering" rules to avoid complying with more stringent pipeline standards.

## Background

In response to the San Bruno disaster of September 9, 2010, the CPUC initiated Rulemaking (R.) 11-02-019, a gas safety rulemaking. The Commission issued Decision (D.)11-06-017, which stated that "historic exemptions must come to an end,"[1] and ordered that all in-service natural gas transmission pipes in California with no evidence of a pressure test be pressure tested or replaced.

As a result of issues arising in the Order to Show Cause regarding Line 147 in R.11-02-019, and the calculation of the MAOP for that line, the Office of Ratepayer Advocates (ORA) sought federal interpretation of federal regulations that establish the standards for the operation of natural gas transmission and distribution lines.

Title 49 of the Code of Federal Regulations (CFR) Part 192 et.al. imposes the requirements to operate natural gas transmission and distribution lines, and § 192.619 establishes three different approaches for calculating the MAOP of pipeline segments. Subsection (a) of § 192.619 imposes four procedures for calculating the MAOP, and requires the pipeline to be operated at the lowest maximum pressure that is calculated by these four procedures. This process establishes the MAOP for that pipeline.

[1] Decision 11-06-017, p. 18.

For segments with certain operation and maintenance records for the five year period before July 1, 1970, Subsection (c) of § 192.619 (also known as the "Grandfather Clause") permits the MAOP to be set at the pipeline segment's highest actual operating pressure to which the segment was subject in that five year period, provided that the segment is "*found to be in satisfactory condition, considering its operating and maintenance history.*"

**PHMSA Issued Interpretation 14-0005 on January 23, 2015[2]**

Regarding the Grandfather Clause (§ 192.619(c)) PHMSA stated:

- For a pre-July 1, 1970 pipeline segment, the operator must determine the MAOP in accordance with § 192.619(a) or 619(d) unless the operator has documentation that meets the § 192.619(c) requirements for the entire pipeline segment and elects to use it to establish MAOP.
- If an operator uses the Grandfather Clause in § 192.619(c) to establish the MAOP, the operator must have documentation of the pipeline segment's condition and operating and maintenance history, including historical pressure records for the maximum operating pressure to which the entire pipeline segment was subjected during the five years prior to July 1, 1970.
- The Grandfather Clause in § 192.619(c) cannot be used after a change in class location.

Regarding class location changes, PHMSA stated:

- Paragraph (d) of § 192.611 requires the operator to confirm or revise the MAOP within 24 months of the change in class location. If an operator fails to confirm or revise the MAOP within 24 months of the change in class location, then § 192.611 cannot be used and the pipeline segment MAOP must be calculated in accordance with § 192.619(a), using the design factor that appears in § 192.111 for the new class location.
- Section 192.611 can be used to revise the MAOP within 24 months after a class location change; after that deadline, the MAOP must be revised according to § 192.619(a).
- Sections 192.517 and 192.603 require that all records regarding the pipeline MAOP determination be kept for the life of the pipeline segment, including records of pipe properties, pipeline component properties, pressure test records, class location studies, current class location designation, and operating history.

**The Current Status and Action Required**

As confirmed by PHMSA's interpretation, some of PG&E's gas transmission pipelines do not comply with federal safety regulations regarding both class location changes and the Grandfather Clause:

- PG&E has identified miles of pipeline, with implications for hundreds of miles of pipeline, that are operating in violation of federal minimum safety regulations.[3]

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[2] A copy of the January 23, 2015 Regulatory Interpretation Letter is available on PHMSA's website at http://phmsa.dot.gov/vgn-ext-templating/v/index.jsp?vgnextoid=4bf8588a7ab1b410VgnVCM100000d2c97898RCRD&vgnextchannel=2b9b34d513f95410VgnVCM100000d2c97898RCRD&vgnextfmt=print and is attached to this letter.

[3] PG&E October 9, 2014 ex parte notice of "ALJ-274 Self-Identified Potential Non-Compliance Notification: Operating Transmission Pipeline Sections Out of Class with Valid Pressure Tests." PG&E self-reported 13 pipeline sections operating at too low of a safety margin on October 9, 2014 and also notified the Safety and Enforcement Division of the Commission (SED) that it intended to operate part of Line 401 out of compliance while lowering other pressures in November. PG&E provided a confidential presentation to SED staff on this issue in April 2014

- PG&E needs to immediately produce the records required by PHMSA to operate under the Grandfather Clause or come into compliance as required under Section 619.619(a).[4]

ORA recommends that the Commission should:

- Identify how many miles of transmission pipeline are operating out of compliance with federal regulations regarding the calculation of MAOP and class location changes, including those miles PG&E has already self-reported;
- Identify the need for federal waivers of operating requirements to keep pipelines in operation until they can be brought into compliance (assuming no imminent safety threat);
- Establish a plan for bringing PG&E's gas transmission system into compliance with the federal regulations as expeditiously as possible; and,
- Clarify whether pipeline operators in California may still use the Grandfather Clause. As demonstrated during the Order to Show Cause discussions on Line 147, there is significant uncertainty among parties about the precise intent and applicability of stricter California standards in place of Federal regulations.

Please do not hesitate to contact Nathaniel Skinner on my staff at 415-703-1393 if you have questions about the information presented above.

Sincerely,

Joseph P. Como
Acting Director

cc: Christine Hammond, Legal Advisor to President Picker
Marcelo Poirier, Legal Advisor to Commissioner Florio
Allison Brown, Legal Advisor to Commissioner Sandoval
Niki Bawa, Legal Advisor to Commissioner Peterman
Rachel Peterson, Chief of Staff to Commissioner Randolph
Karen Clopton, CPUC General Counsel
Denise Tyrrell, Director, Safety and Enforcement Division
Elizaveta Malashenko, Deputy Director, Safety and Enforcement Division

Attachment

---

which contains specific mileage impacts. PG&E has since reported initiating replacement or other remediation for many of these segments.

[4] D.11-06-017 discusses PG&E records searches performed to confirm operation under the Grandfather Clause, but there is no evidence confirming that these historical records were of the type or quality required to operate in compliance with the Grandfather Clause.

# ATTACHMENT L

## PG&E Data Response 6452.03 to ORA

## Dated June 14, 2015

**From:** [redacted]@pge.com]
**Sent:** Sunday, June 14, 2015 2:13 PM
**To:** [redacted]
**Subject:** FW: PD Rulemaking 11-02-019 - (Index No. 6452Supp01- ORA Grandfather-01 Request)

[redacted]

Per your request:

**QUESTION 6452.03:** Please explain how PG&E can establish the MAOP of a pipe segment in compliance with 49 CFR 192.619(a) if PG&E does not have a pressure test record for the pipe segment.

**RESPONSE 6452.03:** As PG&E has explained in various proceedings, workshops, and correspondence, PG&E relies on the CPUC's decisions (*e.g.,* D.11-06-017, D.14-11-023, D.13-12-042) and directives (e.g., attachment "*3-16-2011_Clanon_Letter.pdf*"), Public Utilities Code Section 958(b), and 49 CFR §192.619(a) to validate the MAOP of its transmission pipelines. Accordingly, the MAOP of pipelines without a pressure test record is calculated using engineering-based calculations on an interim basis pending strength test, consistent with the PSEP, GT&S and related filings and proceedings.

See the Proposed Decision in Rulemaking 11-02-019, which states: "On May 11 and 12, 2015, the Commission's Safety and Enforcement Division conducted a workshop on calculating Maximum Allowable Operating Pressure in California for natural gas transmission systems. This workshop addressed issues related to the relationship between Commission D.11-06-017 and federal regulations."

In addition, on 9/19/14, the National Transportation Safety Board closed Recommendation P-10-005 to the CPUC stating:

> We note that you reviewed the PG&E MAOP validation project and confirmed the following:
>
> - The MAOP for transmission pipeline components was established and supported by complete pressure test records in compliance with historical regulatory requirements and best practices.
> - Material specifications critical to calculating MAOP of pipeline components were supported by existing records. Conservative engineering-based assumptions were used when those critical material specifications were unsupported by records.
> - MAOP validation ***was conducted in accordance with regulatory requirements, mandates***, and Safety Recommendations P-10-2 and P-10-3.
>
> Your April 25, 2014, final report concluded that PG&E's MAOP validation had satisfied state requirements; it also satisfies Safety Recommendation P-10-5, which is classified CLOSED—ACCEPTABLE ACTION.
>
> (Emphasis added).

# ATTACHMENT M

## PG&E Data Response 6452.07 to ORA

## Dated June 5, 2015

**From:** [redacted]@pge.com]
**Sent:** Friday, June 05, 2015 6:09 PM
**To:** [redacted]
**Cc:** [redacted]
**Subject:** ORA data request to PG&E in regards to 49 CFR 192.619

[redacted]

Below please find responses to questions 7, 9, 11, 12 and 13 from your data request. PG&E is still reviewing the rest of your requests and will provide responsive materials as soon as they are available.

*PG&E is providing this response pursuant to Public Utilities Code §583 because portions of this response and the attached documents contain information that should remain confidential and not be subject to public disclosure as it contains one or more of the following: critical infrastructure information that is not normally provided to the general public, the dissemination of which poses public safety risks (pursuant to the Critical Infrastructures Information Act of 2002, 6 U.S.C. §§131-134); personal information pertaining to PG&E employees below director level; customer information; or commercially sensitive/proprietary information. This information is highlighted yellow below.*

**QUESTION 6452.07:** Please provide a copy of PG&E's plan intended to comply with California Public Utilities Code §958, or provide identifying information if ORA is already in possession of the plan.
**RESPONSE 6452.07:** Refer to the filings and materials in the PSEP proceeding and PG&E's 2015 GT&S rate case.

# ATTACHMENT N

## PDF Of Excel Spreadsheet Showing How Penalties Were Calculated

| DOCUMENT | DATE |
|---|---|
| SED Letter | 11/5/2015 |
| 2012 AR | 8/30/2013 |
| 2013 AR | 3/29/2014 |
| 2014 AR | 9/1/2015 |
| 2015 Feb Ltr | 2/2/2015 |
| 2015 Feb Hrg | 2/6/2015 |
| MAOP Wks | 5/12/2015 |
| 2015 June DR | 6/14/2015 |
| | |
| Section 958 | 1/1/2015 |

PG&E represents that it is calculating MAOP solely pursuant to 49 CFR § 192.619(a).

$1,158,500 $115,850,000

PG&E represents in its 2013 and 2014 Annual Reports that it has zero incomplete records

$325,500 $32,550,000

PG&E is in violation of § 958 because it does not have a comprehensive test and replace plan in place

$154,000 $15,400,000

| Rule 1 Total | |
|---|---|
| $1,638,000 | $163,800,000 |

| | Days | $500 | $50,000 |
|---|---|---|---|
| 2012 AR | 797 | $398,500 | $39,850,000 |
| 2013 AR | 586 | $293,000 | $29,300,000 |
| 2014 AR | 65 | $32,500 | $3,250,000 |
| 2015 Feb Ltr | 276 | $138,000 | $13,800,000 |
| 2015 Feb Hrg | 272 | $136,000 | $13,600,000 |
| MAOP Wks | 177 | $88,500 | $8,850,000 |
| 2015 June DR | 144 | $72,000 | $7,200,000 |
| | | | |
| 2013 AR IR | 586 | $293,000 | $29,300,000 |
| 2014 AR IR | 65 | $32,500 | $3,250,000 |
| | | | |
| Section 958 | 308 | $154,000 | $15,400,000 |
| | | | |
| **Grand Total** | | $ 1,638,000 | $ 163,800,000 |

# ATTACHMENT O

## PG&E Data Response 6757.01 to 6757.12 to ORA

## Dated September 30, 2015

**From:** [redacted]@pge.com]
**Sent:** Wednesday, September 30, 2015 8:22 AM
**To:** [redacted]
**Cc:** [redacted]
**Subject:** FW: Index 6757: ORA data request 02 to PG&E in regards to 49 CFR 192.619

[redacted]

Per your request, my apologies for the late response:

*PG&E is providing this response pursuant to Public Utilities Code §583 because this response and/or the attached documents contain information that should remain confidential and not be subject to public disclosure as it contains one or more of the following: critical infrastructure information that is not normally provided to the general public, the dissemination of which poses public safety risks (pursuant to the Critical Infrastructures Information Act of 2002, 6 U.S.C. §§131-134); personal information pertaining to PG&E employees below director level; customer information; or commercially sensitive/proprietary information. This confidential information is* ***highlighted yellow****.*

Please note the "*IndexNo.6757 02_Maps_CONF.zip*" will be transmitted via the CPUC FTP site due to its size.

**QUESTION 6757.01:** With regard to the attached spreadsheet, please amend PG&E's Confidential Response to Index No. 6452.01 to provide the following information in the highlighted yellow columns for the referenced lines and segments:

- The Design Factor used in determining Design MAOP.
- Specification regarding whether the pipe is covered under transmission or distribution regulations.
- The closest town or city the Pipeline Segment passes through.
- Description of features leading to Class 3 designation (blacked out cells indicate not designated as Class 3, and no response is needed for that cell).
    - For example (i) 46 or more buildings intended for human occupancy; (ii) within 100 yards of a building or small, well-defined outside area that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period.
    - If (ii), please describe the building or area.
- Whether PG&E is missing the record or has a poor quality record.
- What mitigation efforts, if any, PG&E will undertake since there is no pressure test on the identified segment.
    - E.g. PG&E will pressure test the segment.
- Expected year for mitigation to be completed.
- The date for which the information provided in the response is current.

**RESPONSE 6757.01:** See attachment "*IndexNo.6757.01_CONF.xlsx*" for the additional information requested. Note that the spreadsheet provided in Response 6452.01 relied on data from PG&E's Pipeline Feature List (PFL) dataset. The PFL is a "living" document that is updated with replacement and test information as work is completed. For this reason, row 10

(Line 191A, Segment 108) and row 15 (Line 21C, Segment 136) in attachment "*IndexNo.6757.01_CONF.xlsx*" should not have been included in the original list because the lines have been hydrotested and retired, respectively. Also, note that these pipelines are all subject to transmission pipeline regulations.

**QUESTION 6757.02:** Please provide detailed maps for the identified segments in the attached Excel spreadsheet. These maps should include similar details to the map provided in PG&E's October 15, 2014 ex parte notice attachments **(map attached for reference)**. If maps are not available, please explain by segment why not.

**RESPONSE 6757.02:** See attachment "*IndexNo.6757 02_Maps_CONF.zip*" for the maps of the pipelines and segments requested. Refer to the table below for the filename of the map for each pipeline and segment provided.

| Route (Line Number) | Segment Number | MP Start | MP End | Map File Name |
|---|---|---|---|---|
| 002 | 110.5 | 42.6887 | 43.3516 | 002_110.5a_CONF.pdf |
| 002 | 110.5 | 39.8312 | 42.6698 | 002_110.5b_CONF.pdf |
| 021C | 136 | 49.9704 | 50.6049 | 021C_136_CONF.pdf |
| 021D | 103.5 | 19.331 | 20.0072 | 021D_103.5_CONF.pdf |
| 021D | 105 | 20.3865 | 20.9571 | 021D_105_CONF.pdf |
| 021F | 103.1 | 0.4108 | 1.0059 | 021F_103.1_CONF.pdf |
| 118A | 160.3 | 26.9132 | 27.4786 | 118A_160.3_CONF.pdf |
| 118A | 203 | 58.8929 | 59.7026 | 118A_203_CONF.pdf |
| 124B | 112 | 10.018 | 10.5313 | 124B_112_CONF.pdf |
| 1819-01 | 411 | 0.5511 | 1.0757 | 1819-01_411_CONF.pdf |
| 1819-01 | 423.2 | 1.3723 | 1.9176 | 1819-01_423.2_CONF.pdf |
| 181A | 107 | 19.0213 | 19.7172 | 181A_107_CONF.pdf |
| 191A | 108 | 4.0779 | 4.8061 | 191A_108_CONF.pdf |
| 319 | 101 | 0.4512 | 1.0907 | 319_101_CONF.pdf |
| 319 | 120 | 3.0296 | 3.617 | 319_120_CONF.pdf |
| 319 | 170 | 4.645 | 5.6467 | 319_170_CONF.pdf |
| 319 | 200 | 7.2517 | 8.5258 | 319_200_CONF.pdf |
| 379 | 101 | 0.0211 | 0.8292 | 379_101a_CONF.pdf |
| 379 | 101 | 0.8292 | 2.5861 | 379_101b_CONF.pdf |

**QUESTION 6757.03:** Please identify the specific columns in PG&E's response to Question 6452.01 that PG&E claims are confidential.

**RESPONSE 6757.03:** PG&E considers the combination and breadth of the detailed pipeline specification and locational data provided in the spreadsheet to constitute confidential critical

energy infrastructure information. The specific columns that PG&E considers confidential are those that could be used in combination to determine the location of the accompanying detailed pipeline specifications: Route (Line Number), Segment Number, MP Start, and MP End.

**QUESTION 6757.04:** Please identify the specific columns in PG&E's response to Question 6452.04 that PG&E claims are confidential.

**RESPONSE 6757.04:** See Response 6757.03.

**QUESTION 6757.05:** Please identify the specific columns in PG&E's response to Question 6452.15 that PG&E claims are confidential.

**RESPONSE 6757.05:** See Response 6757.03.

**QUESTION 6757.06:** Please confirm that PG&E has approximately 38.6 miles of pipeline, operating above 100 psig, installed after November 11, 1970, for which PG&E does not have a traceable, verifiable and complete pressure test record. If the 38.6 miles is not correct, please explain. If there is a subset of the 38.6 miles for which PG&E has a traceable, verifiable, and complete pressure test record, please provide a breakdown between untested and miles without adequate record, by class location. If the identified miles of pipeline are incorrect, please provide the correct number and explain.

**RESPONSE 6757.06:** Per the data provided to ORA in Response 6452.01, there are 38.6 miles of pipeline operating above 100 psig installed after November 11, 1970, for which PG&E does not have a traceable, verifiable and complete pressure test record.

**QUESTION 6757.07:** Please confirm that PG&E has approximately 62.6 miles of pipeline, operating above 20% Specified Minimum Yield Strength (SMYS), installed before November 12, 1970 and after July 1, 1961, for which PG&E does not have a traceable, verifiable and complete pressure test record. If the 62.6 miles is not correct, please explain. If there is a subset of the 62.6 miles for which PG&E has a traceable, verifiable and complete pressure test record, please provide a breakdown between untested and miles without adequate record, by class location. If the identified miles of pipeline are incorrect, please provide the correct number and explain.

**RESPONSE 6757.07:** Per the data provided to ORA in Response 6452.01, there are 52.3 miles of pipeline operating above 20% SMYS and 10.3 miles of pipeline operating below 20% SMYS installed between July 1, 1961, and November 12, 1970, for which PG&E does not have a traceable, verifiable and complete pressure test record. See attachment "*IndexNo. 6757.07_Table_CONF.xlsx*" for a list of the segments operating above 20% SMYS that sum to 52.3 miles.

**QUESTION 6757.08:** Please confirm that PG&E has approximately 130.8 miles of pipeline in class 3 locations for which PG&E does not have a traceable, verifiable and complete pressure test record. If the 130.8 miles is not correct, please explain. If there is a subset of the 130.8 miles for which PG&E has a traceable, verifiable and complete pressure test record, please provide a breakdown between untested and miles without adequate records. If the identified miles of pipeline are incorrect, please provide the correct number and explain.

**RESPONSE 6757.08:** Per the data provided to ORA in Response 6452.01, there are 129.5 miles of pipeline in class 3 locations for which PG&E does not have a traceable, verifiable and complete pressure test record. Per Response 6757.01, miles of pipe for L-191A and L-021C have been removed from this mileage total.

**QUESTION 6757.09:** Please confirm that PG&E has approximately 866.9 miles of pipeline in with lengths equal to or greater than 250 feet for which PG&E does not have a traceable, verifiable and complete pressure test record. If the 866.9 miles is not correct, please explain. If there is a subset of the 866.9 miles for which PG&E has a traceable, verifiable and complete pressure test record, please provide a breakdown between untested and miles without adequate records. If the identified miles of pipeline are incorrect, please provide the correct number and explain.

**RESPONSE 6757.09:** Per the data provided to ORA in Response 6452.01, there are 987.0 miles of pipeline with lengths equal to or greater than 250 feet, for which PG&E does not have a traceable, verifiable and complete pressure test record. Note that the 866.9 miles identified in Question 6757.09 does not appear to account for the combination of like routes with consecutive mile points to determine sections of pipeline that exceed 250 feet in length. Additionally, per Response 6757.01, miles of pipe for L-191A and L-021C have been removed from this mileage total.

**QUESTION 6757.10:** Please confirm that PG&E has approximately 325 miles of pipeline which relies upon engineering assumptions about yield strength of the pipe as of December 31, 2014. If the identified miles of pipeline are incorrect, please provide the correct number and explain.

**RESPONSE 6757.10:** Per the data provided to ORA in Response 6452.04, there are approximately 325 miles of pipeline where the yield strength is assumed.

**QUESTION 6757.11:** Please confirm that PG&E is using 24,000 psig as the yield strength, where yield strength is unknown, for approximately 25.4 miles of pipe. If the identified miles of pipeline are incorrect, please provide the correct number and explain.

**RESPONSE 6757.11:** Per the data provided to ORA in Response 6452.04, there are 25.4 miles of pipeline where a yield strength of 24,000 psig is assumed.

**QUESTION 6757.12:** Please confirm that PG&E has approximately 128.5 miles of pipeline for which PG&E is assuming the yield strength of the pipe is greater than 24,000 psig, while both wall thickness and joint efficiency factor are unknown. If the identified miles of pipeline are incorrect, please provide the correct number and explain.

**RESPONSE 6757.12:** Per the data provided to ORA in Response 6452.04, there are 128.5 miles of pipeline where a yield strength greater than 24,000 psig is assumed and where the wall thickness and joint efficiency factor are unknown.